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SR 514 Design Traffic Technical Memorandum

This Design Traffic Technical Memorandum is prepared to provide the Florida Department of Transportation (FDOT) – District Five with design traffic volumes and traffic analysis for use in the SR 514 Project Development and Environmental (PD&E) Study. This technical memorandum includes the development of existing traffic volumes, evaluation of existing operating conditions, development of design traffic characteristics. In addition, this study entails the development of future traffic forecasts for the No Build and the Build Alternatives and evaluation of operating conditions of the corridor as appropriate during the service life of the proposed roadway project.

Financial Project ID: 430136-1
Roadway ID: 70180000

Prepared for:

- **FDOT District 5**

- **Draft Submitted March 2015**

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1 Introduction

The Florida Department of Transportation (FDOT) District Five is conducting a Project Development and Environmental (PD&E) Study (Financial Project Number: 430136-1) on SR 514 from SR 507 (M.P. 3.060) to US 1/ SR 5 (M.P. 6.698) in Brevard County, Florida. FDOT requested to perform the Design Traffic Analysis to determine the impacts and assess the need for future capacity improvements on the SR 514 study corridor.

The Design Traffic Process for this study is divided into two broad phases. They are:

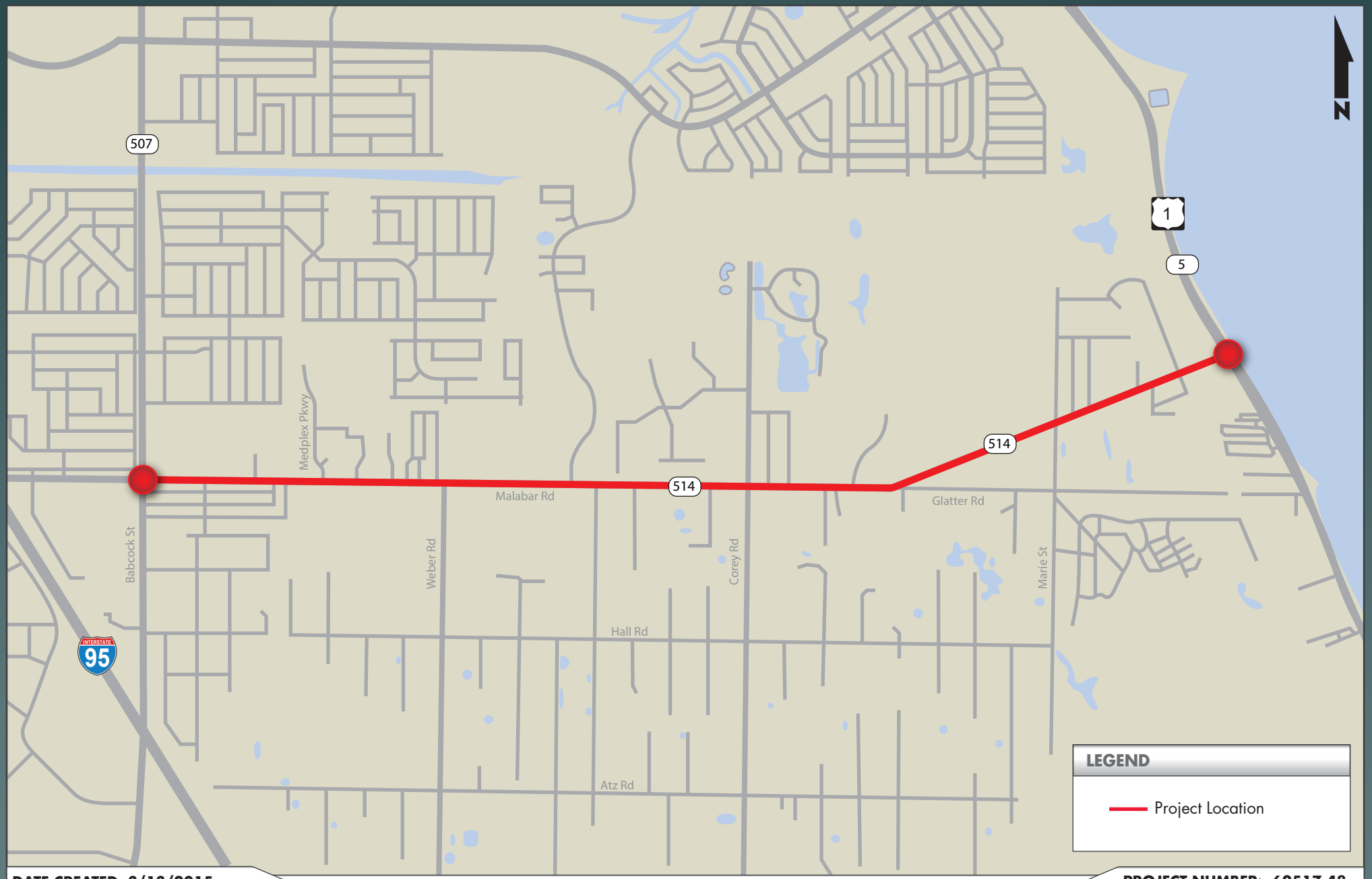
- **Phase One –** This phase of the study entails the development of existing traffic volumes, design characteristics, evaluation of existing operating conditions and model validation for year 2015 traffic conditions. In addition, this phase of the study entails the development of the future traffic forecasts for the No Build and the Build Alternatives.
- **Phase Two –** This phase of the study includes an evaluation of the characteristics and operating conditions of the corridor during the service life of the proposed roadway project.

The current document is prepared in support of the above-mentioned two phases of the Design Traffic Analysis. FDOT performed a Design Traffic Analysis for year 2011 conditions with opening year 2018, mid-design year 2028 and design year 2038 as future years for traffic projection and operations analysis. The study area map is shown in **Figure 1**.

The final Design Traffic Technical Memorandum (DTTM) that recommended the widening of the SR 514 study corridor (east of Babcock Street to US 1) from two to four lanes was finalized in January of 2013. In the later part of 2013, FDOT requested to conduct an HCS analysis to reevaluate the Build Alternative (four-lane section). Therefore, a reevaluation was done in July 2014 for the SR 514 segment between Weber Road and US 1 with a two-lane section and suggested that the initial four-lane recommendation be changed to the following:

- Drop the four-lane section (to a two-lane section) east of Corey Road
- Maintain the intersection geometry recommended in the Final DTTM (January 2013).

The DTTM updated assumes the build alternative lane configuration and lane geometry to be consistent with the July 2014 reevaluation study. FDOT has updated the schedule of the project opening year from 2018 to 2025, and design year from 2038 to 2045. This report provides a revised analyses with the latest traffic data collected for existing year 2015. However, the previously developed and validated travel demand model volumes was used in the current study for growth rate establishment for future traffic projections for no-build and build conditions.



DATE CREATED: 3/13/2015

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FIGURE 1
Project Location Map

1.1 Description of Project

The State maintained SR 514 corridor is primarily an east/west facility, which in its entirety, extends from a western terminus at I-95 to an eastern terminus at US 1, in Brevard County. The PD&E Study for SR 514 from SR 507 to US 1 (Financial Project Number: 4301361) is identified in the current SCTPO's Transportation Improvement Program (TIP) (Amended December 11, 2014) under the fiscal year 2015-2019.

A need for roadway capacity improvement (widening to four lanes) is identified for SR 514 from SR 507 to US 1/SR 5 in the SCTPO 2035 Long Range Transportation Plan (LRTP) Report dated January 11, 2011. Copies of the SCTPO TIP and SCTPO 2035 LRTP cost feasible plan are provided in **Appendix A**. This study will evaluate SR 514 improvements as a means of providing additional capacity and reducing congestion along the corridor. It should be noted that since the intersection of SR 514 and SR 507 was evaluated in the previously completed Study - "***SR 507 Design Traffic Technical Memorandum, prepared for SR 507 Final Engineering Design Study from SR 514 to South of Palm Bay Road Brevard County, Florida – Financial Project ID: 237650-6",*** the current report did not include this intersection.

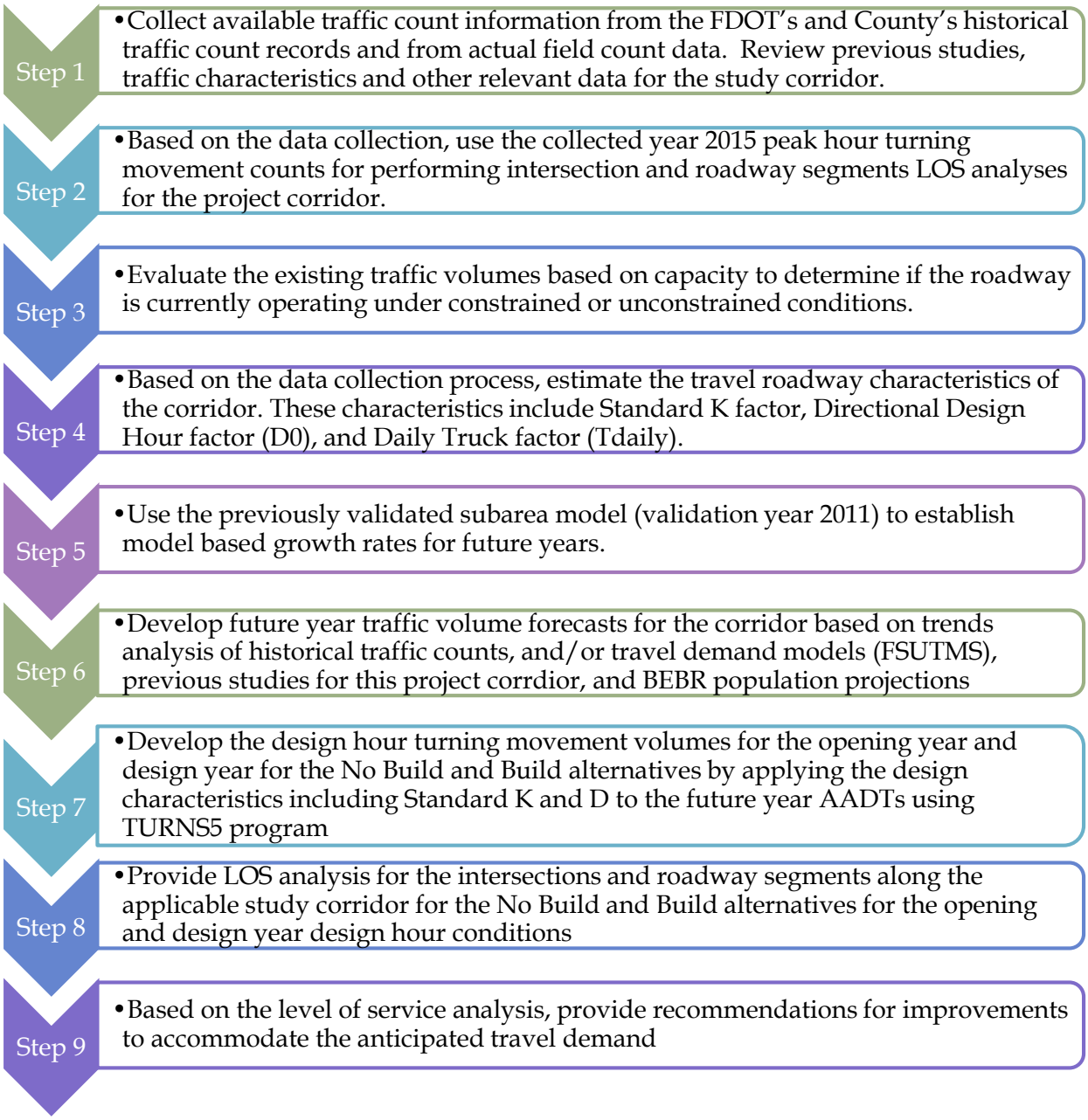
1.2 Objective

The objective of this Technical Memorandum is to provide the FDOT District Five with the Average Annual Daily Traffic (AADT), Peak Hour Volumes, intersection and roadway Level of Service (LOS) for the base year 2015. This report also involves the development of the design traffic characteristics including Standard K Factor, Design Hour Directional Demand (D_{30}), and percentage of trucks for both the design hour and daily demand (T_{peak}, T_{daily}) for use in the operational analysis of future conditions.

1.3 Methodology

The methodology used for the development of this report is illustrated in **Figure 2.**

Figure 2: SR 514 Design Traffic Technical Memorandum Methodology



2 Project Information

2.1 Project Location, Limits and Field Inventory

2.1.1 SR 514 from SR 507 to US 1

SR 514 serves both local and regional traffic; the existing roadway characteristics that are relevant to this study are shown in **Table 1.** The Straight Line Diagram (SLD) and the relevant Roadway Characteristics Inventory data (RCI) are provided in **Appendix B** of this report.

Table 1: Roadway Characteristics of SR 514 Corridor

Characteristic	Observation
Limits	SR 507 (M.P. 3.060) – US 1 (M.P. 6.698)
Location	SR 507 to West of Medplex Parkway – City of Palm Bay, Brevard County; West of Medplex Parkway to US 1 - Town of Malabar, Brevard County
FDOT Roadway ID	70180000
Roadway Maintaining Agency	FDOT
Functional Classification	Four Lane divided Urban Minor Arterial from M.P. 3.060 to M.P. 3.218 Two Lane Undivided Urban Minor Arterial from M.P. 3.218 to M.P. 6.698
Speed Limits	M.P. 3.060 – M.P. 3.850 : 45 MPH M.P. 3.850 – M.P. 5.974 : 55 MPH M.P. 5.974 – M.P. 6.332 : 45 MPH M.P. 6.332 – M.P. 6.698 : 30 MPH
Adopted LOS	FDOT Standard: "D"; Brevard County Standard: "D"; City of Palm Bay Standard: "E" and Town of Malabar Standard: "D"
Strategic Intermodal System Facility	No
Signalized Intersections from West to East	1) SR 507 (M.P. 3.060) 2) US 1 (M.P. 6.698)
Land Uses	Predominantly residential use along the entire study corridor. Strip commercial use near the intersection of SR 514 and SR 507. Palm Bay Hospital on the north side of SR 514 near Medplex Parkway.
Pavement Width	13 foot wide travel lanes from M.P. 3.060 – M.P. 3.218 12 foot wide travel lanes from M.P. 3.218 – M.P. 6.698
Sidewalks	5' sidewalk present on the north and south sides of SR 514 from M.P. 3.060 to M.P. 3.224.
Parallel Parking	None
Bike Lanes	Undesignated bike lanes from M.P. 3.217 to M.P. 4.241
Hurricane Evacuation	SR 514 within the study limits is a hurricane evacuation route.

2.2 Existing Transit Service

Space Coast Area Transit is the Brevard County's Public Transit System. It is one of Brevard County's important economic engines helping in getting employees to work and transport tourists on SR AIA, getting students to college, reducing medical costs through Paratransit service, and operating one of the largest commuter vanpool programs in the nation. Its fixed route service operates throughout the county to provide public transportation to Brevard's residents and visitors. Fixed routes operate on a set schedule at designated stops, providing extensive coverage throughout the cities within Brevard County as well as unincorporated areas.

Currently fixed transit routes do not operate on SR 514 within the project limits between SR 507 and US 1. Bus Route 23 has a stop on SR 514 just east of Babcock Street. A need for a fixed transit route was identified in the Space Coast Transportation Planning Organization's 2035 LRTP dated January 11, 2011. A copy of the year 2035 Transit Needs Plan is available in **Appendix A** of this report.

3 Existing Conditions

This section describes the analysis of traffic flow operating conditions for the base year 2015 at the major intersections and roadway segments along the project corridor.

In analyzing the year 2015 operating conditions of the intersections and roadway segments, traffic counts collected in the field during February of 2015 and September 2014 were used along with the existing roadway and intersection geometry. The intersection LOS analysis was performed for year 2015 conditions using the signal timing data provided by the Brevard County. The existing conditions intersection and roadway LOS analysis was performed using the Synchro Software (version 8.0). The following sub-sections describe the overall process.

3.1 Traffic Count Information

Figure 3 provides the location of traffic counts and type of traffic count data collected for the study. The data collected included:

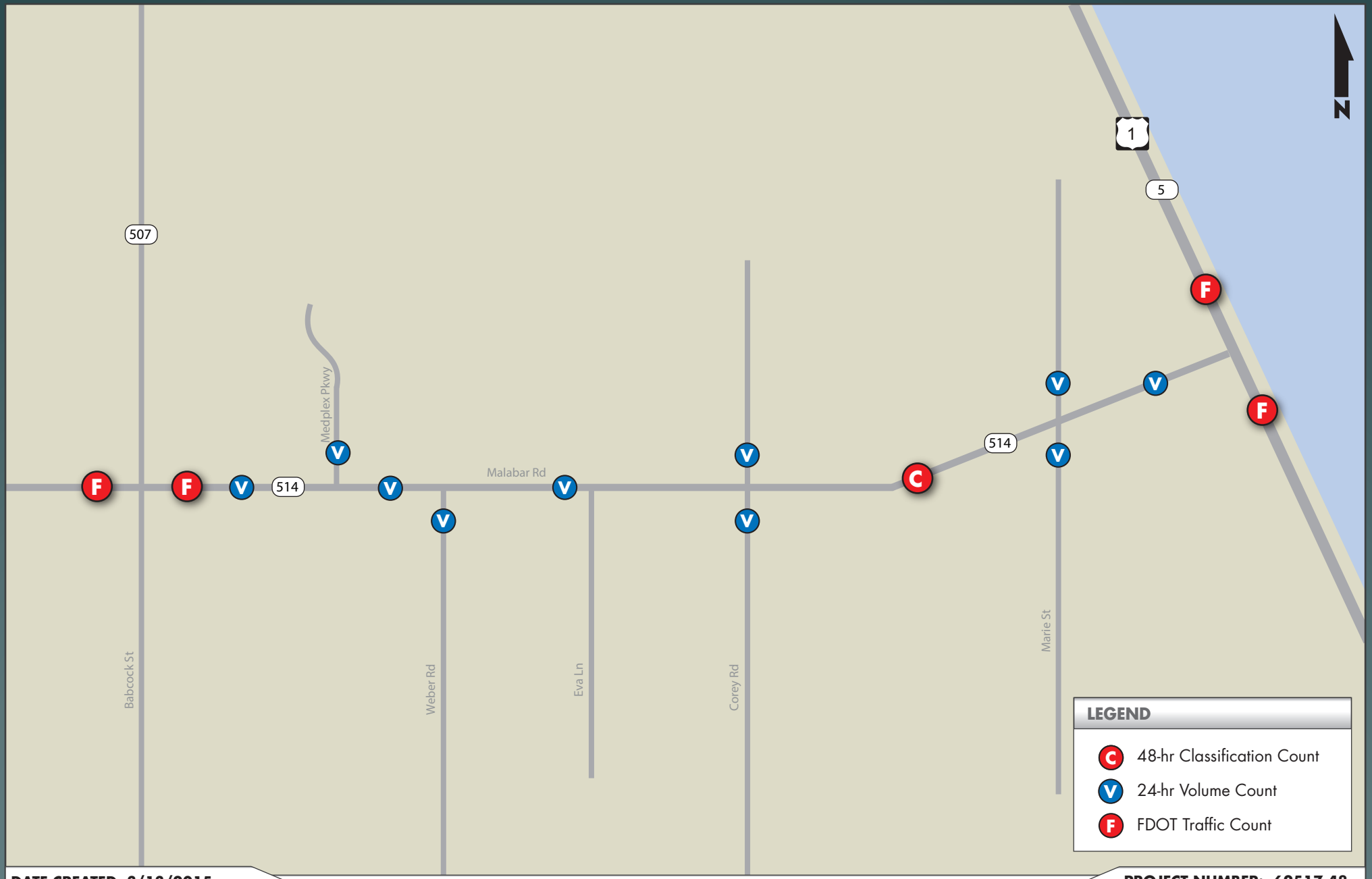
- 24-hour bi-directional volume counts (10 locations)
- 48-hour classification count (1 location)
- 24-hour bi-directional volume counts (4 locations) obtained from FDOT Traffic Information
- 4-hour intersection turning movement counts for a.m. and p.m. peak hours (5 intersections)

The weekday turning movement counts were collected for the intersections between the peak hours of 7:00-9:00 a.m. and 4:00-6:00 p.m. The traffic count data (24-Hour volume and 48-hohur classification) collected were seasonally adjusted utilizing the FDOT axle and seasonal adjustment factors for Brevard County to provide 2015 annual average conditions.

As part of the traffic count program for this project, one location on SR 514 was utilized in this study as vehicle classification count. Vehicle composition for the classification count was broken into three primary vehicle types:

- Passenger Vehicles – Motorcycles, Cars, Vans, and Pickups;

- Medium Truck – Buses and 2 axle Single Unit Trucks;
- Heavy Trucks – (3 or 4 axles) Single Unit Trucks, 2 axle Tractors (with 1 or 2 axle Trailer), 3 axle Trailers (2 or 3 axle Trailers), and (5, 6 and 7 axle) Multi-trailers.



DATE CREATED: 3/13/2015

PROJECT NUMBER: 62517.48

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FIGURE 3
Traffic Count Locations by Type

Based on these categories, percentages for overall trucks (medium and heavy) were determined for peak and daily traffic conditions. Copies of all traffic count data are provided in **Appendix C**. Latest available FDOT axle and seasonal adjustment factors for Brevard County are provided in **Appendix D**.

3.2 Existing Geometry

Figure 4 provides the year 2015 intersection geometry for all of the intersections evaluated in this study. The year 2015 intersection geometry information was obtained and verified based on field visits and aerial photographs. The following intersections were evaluated as part of the existing conditions in this study.

3.2.1 SR 514 Corridor

The following intersections are included within the study limits:

- SR 514 @ Medplex Parkway (unsignalized)
- SR 514 @ Weber Road (unsignalized)
- SR 514 @ Corey Road (unsignalized)
- SR 514 @ Marie Street (unsiignalized)
- SR 514 @ US 1 (signalized)

The existing geometry will be considered as one of the factors in determining potential intersection improvements to accommodate the travel demand.

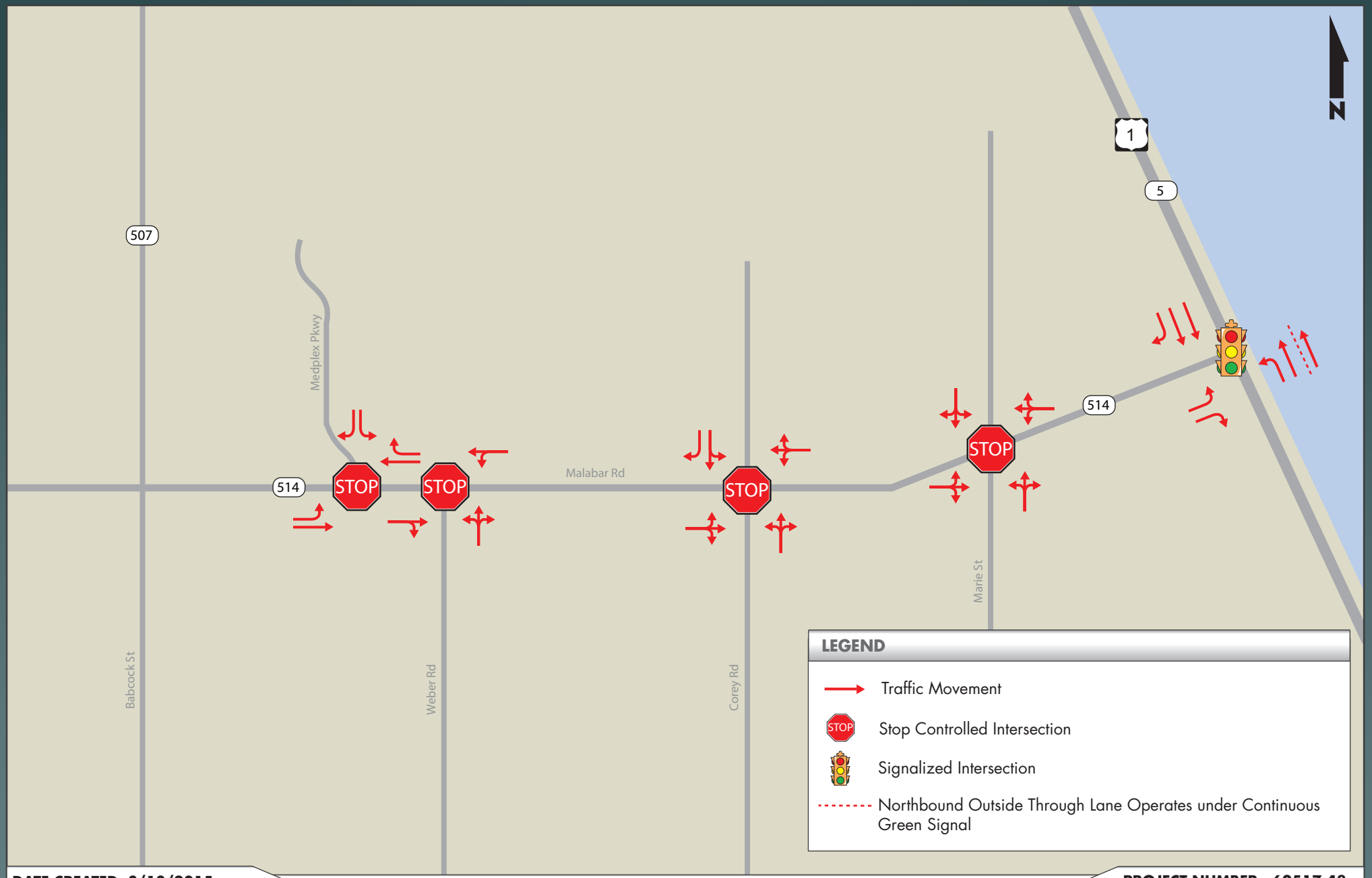

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FIGURE 4

Existing Year 2015 Geometry

3.3 Existing Traffic Volumes

Traffic count information as collected was used to develop existing traffic characteristics for the project corridors and the intersecting side streets. The truck factors for the peak condition based on the data collected was used in the existing intersection analyses.

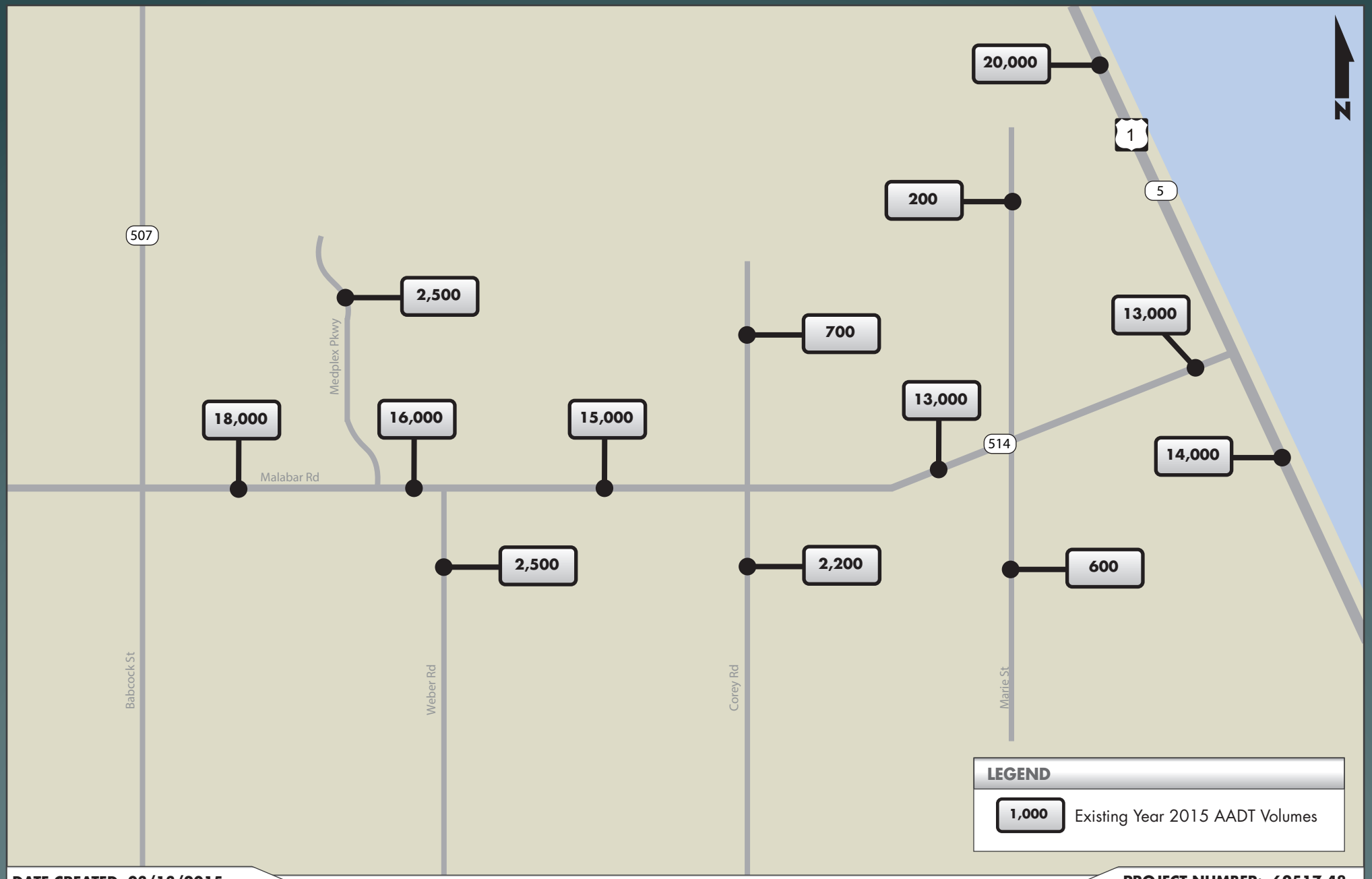
Based on the 24-Hour volume counts and 48-Hour classification counts, peak hour traffic flow (K measured) and, directional split (D measured) for the roadways in the study area were derived. The adjusted AADT volumes for the individual roadway segments are provided in **Table 2**. **Figure 5** provides the existing AADT's for the project corridor and the side streets.

Table 2: Existing Year 2015 Traffic Volumes

Roadway / Segment	Date of Count	Type of Count	Measured Characteristics							"T_{Daily}"	Axle Adj.[2]	Seasonal Adj.[1]	Adjusted AADT [3]
			ADT	Peak Hr.	NB/EB	SB/WB	Peak Time	"K"	"D"				
Mainline Characteristics (SR 514)													
SR 514													
West of Medplex Parkway	2/3/2015	24-Hour Volume	19,895	1,879	768	1,111	4:30-5:30	9.4%	59.1%	-	0.96	0.96	18,000
West of Weber Road	2/3/2015	24-Hour Volume	17,795	1,632	684	948	4:30-5:30	9.2%	58.1%	-	0.96	0.96	16,000
East of Weber Road	2/3/2015	24-Hour Volume	15,861	1,484	503	981	5:00-6:00	9.4%	66.1%	-	0.96	0.96	15,000
West of US-1	2/3/2015	24-Hour Volume	14,069	1,356	473	883	4:30-5:30	9.6%	65.1%	-	0.96	0.96	13,000
West of Marie Street	9/23/2014	48-Hour Classification	11,832	1,168	789	379	7:30-8:30	9.9%	67.5%	5.2%	1.00	1.06	13,000
East of SR 507	8/13/2013	FDOT Classification	-	-	-	-	-	9.0%	54.2%	6.7%	1.00	1.04	19,000 [4]
West of SR 507	4/3/2013	FDOT Classification	-	-	-	-	-	9.0%	54.2%	7.8%	1.00	0.93	37,000 [4]
Side Street Characteristics													
US 1/SR 5													
North of SR 514	9/10/2013	FDOT Classification	-	-	-	-	-	9.0%	54.2%	4.9%	0.98	1.06	20,000 [4]
South of SR 514	5/10/2013	FDOT Classification	-	-	-	-	-	9.0%	53.1%	5.0%	0.97	1.00	14,000 [4]
Corey Road													
North of SR 514	9/23/2014	24-Hour Volume	634	61	30	31	6:15-7:15 PM	9.6%	50.8%	-	0.98	1.06	660
South of SR 514	9/23/2014	24-Hour Volume	2,105	195	146	49	7:15-8:15	9.3%	74.9%	-	0.98	1.06	2,200
Weber Road													
South of SR 514	9/23/2014	24-Hour Volume	2,438	217	133	84	7:15-8:15	8.9%	61.3%	-	0.98	1.06	2,500
Medplex Parkway													
North of SR 514	2/3/2015	24-Hour Volume	2,679	229	114	115	1:15-2:15	8.5%	50.2%	-	0.99	0.96	2,500
Marie St													
North of SR 514	2/12/2015	24-Hour Volume	231	31	13	18	9:45-10:45	13.4%	58.1%	-	0.99	0.95	220
South of SR 514	2/12/2015	24-Hour Volume	608	53	20	33	3:45-4:45	8.7%	62.3%	-	0.99	0.95	570

Notes:

1. Most Recent Seasonal Adjustment factors were obtained from FDOT 2013 Traffic Count Information
2. Most Recent Axle Adjustment factors were obtained from FDOT 2013 Traffic Count Information
3. Adjusted AADT = Measured ADT * Axle Adjustment * Seasonal Adjustment
4. AADT obtained from FDOT Traffic Information DVD 2013



DATE CREATED: 03/13/2015

PROJECT NUMBER: 62517.48

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FIGURE 5
Existing Year 2015 AADT Volumes

3.4 Year 2015 Turning Movement Counts

Turning movement count (TMC) information for the intersection of SR 514 at Corey Road and SR 514 at Weber Road were obtained from the SR 514 Turn Lane Addition (Financial Project ID: 413761), dated December 2014. TMCs at the other three intersections for the a.m. and p.m. peak hour conditions were collected for this study. As the seasonal factor values for the intersection turning movement volumes were less than 1.00, the TMC were not adjusted for seasonal variations for conservative analysis. The year 2015 a.m. and p.m. peak hour turning movement volumes for the study intersections are depicted in **Figure 6**. The year 2015 a.m. and p.m. peak hour turning movement volumes collected at the study intersections are provided in **Appendix C**.

The intersection of SR 514 and US 1 is "Florida T-intersection" also called as "Continuous Green T-Intersection", where the outside northbound through lane operates as a free movement (has a continuous green phase.) The northbound through movement traffic using the outside through lane (operating under Continuous Green phase) and inside through lane (controlled by traffic signal) are collected separately. The northbound right turns traffic in the turning movement sheet for the intersection of SR 514 and US 1 provided in **Appendix C** represents the northbound through movement traffic using the outside through lane.

3.5 Year 2015 LOS Analysis

Levels of service for the study corridors were determined using Synchro software version 8.0. and the latest (2012) FDOT's Generalized Service Volume Tables. Specific analysis techniques utilized in the study include the signalized, unsignalized intersections and arterial analyses. The outputs from Synchro were presented as results for the intersection LOS analyses.

According to Exhibit 18-4 (page 18-6) of Highway Capacity Manual (HCM 2010), an average control delay per vehicle from 55 seconds up to 80 seconds is considered LOS E condition and beyond 80 seconds is considered LOS F condition at a signalized intersection.

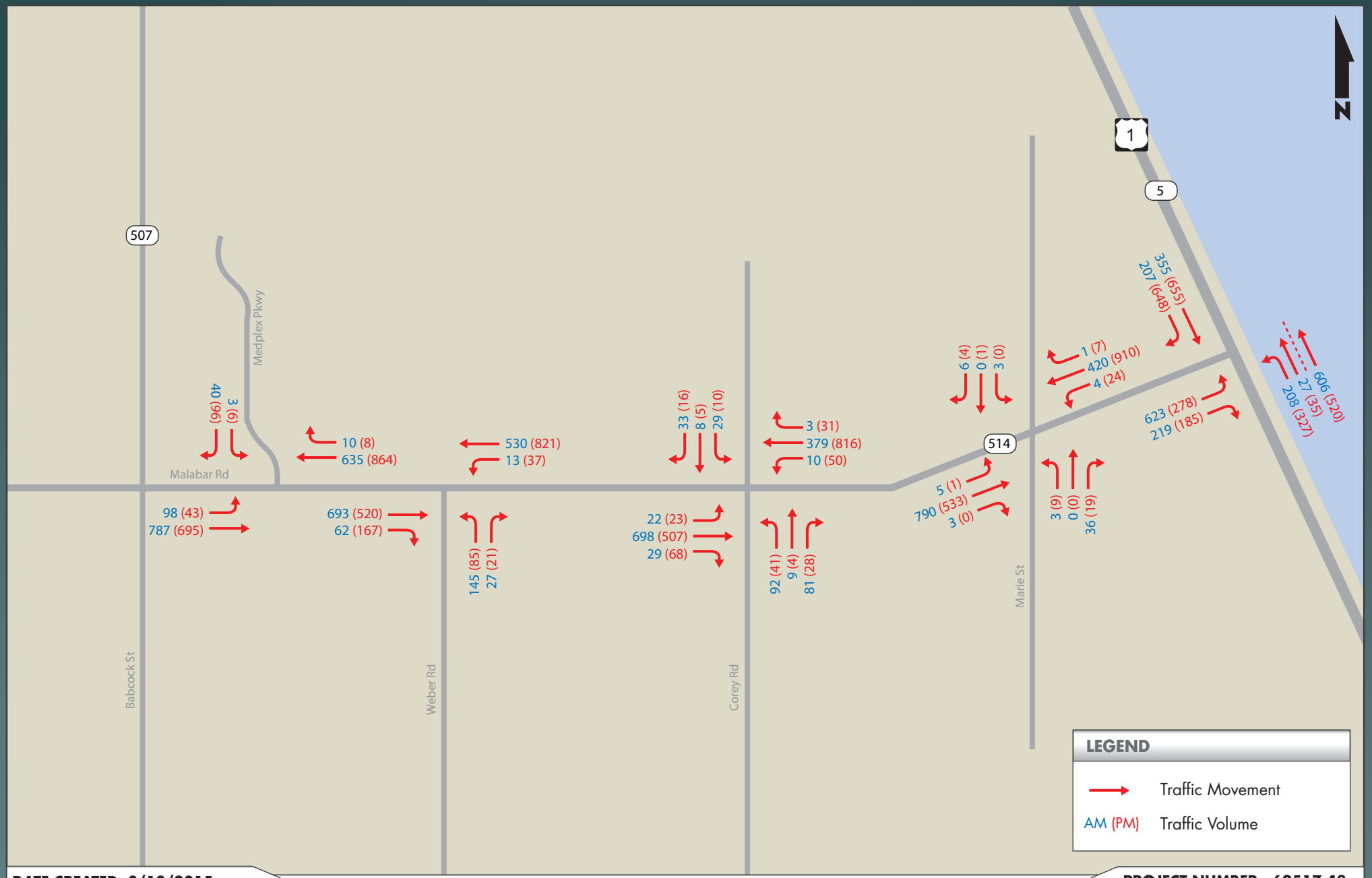

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FIGURE 6
Existing Year 2015
Turning Movement Volumes

3.5.1 Year 2015 Intersection LOS Analysis

The year 2015 a.m. and p.m. peak hour turning movement volumes along with the year 2015 intersection geometry were used in the intersection LOS analysis. The signal timing data provided by the Brevard County were used in the intersection LOS analysis for signalized intersections.

A summary of LOS analysis for the study intersections is included in **Table 3**. As shown in **Table 3**, during the year 2015 a.m. and p.m. peak hour conditions, the minor approaches at the unsignalized intersections at Weber Road and Corey Road at SR 514 were found to operate below LOS D. The base year 2015 a.m. and p.m. peak hour Synchro intersection analysis output along with the signal timing data are included in **Appendix E**.

Table 3: Existing Intersection LOS Summary

Study Intersection	Traffic Control	Adopted LOS	AM Design Hour		PM Design Hour	
			Delay (sec)	LOS	Delay (sec)	LOS
Medplex Parkway	Stop	D	9.5/22.7	A/C	10.1/21.4	B/C
Weber Road	Stop	D	9.6/219.4	A/F	9.2/99.6	A/F
Corey Road	Stop	D	9.4/148.4	A/F	9.8/86.5	A/F
Marie Street	Stop	D	10.2/19.6	B/C	10.0/26.4	A/D
US 1	Signal	D	21.1	C	13.7	B

Notes:

1. Synchro based outputs are presented in this table for both the signalized and unsignalized intersections
2. Overall intersection delay and LOS results are reported for signalized intersections
3. In case of unsignalized intersections, major street/minor street worst case results (delay and LOS) are reported.
4. Result shown in red color exceeds the adopted LOS standard

3.5.2 Year 2015 Arterial LOS Analysis

The roadway segments level of service analysis was performed for the year 2015 a.m. and p.m. peak hour conditions using FDOT's generalized planning analysis. The roadway peak-hour peak-direction volumes obtained from intersection turning movement count data was compared with service volumes provided in the FDOT's generalized LOS tables to determine the existing operating conditions.

Table 4: Existing Year 2015 Arterial LOS Analysis Summary

Roadway	#. Of Lanes	FDOT LOS Standard	Maximum Service Volume	Existing Pk. Hr. Pk. Dir. Volume	Existing LOS
SR 514					
Medplex Parkway to Weber Road	2	D	880	873	D
Weber Road to Corey Road	2	D	880	904	E
Corey Road to Marie Street	2	D	880	836	D
Marie Street to US 1	2	D	880	814	C

As shown in **Table 4,** SR 514 between Medplex Parkway and Marie Street is currently operating at LOS D, with the exception of the segment between Weber Road and Corey Road where it does not meet LOS D criteria. Between Marie Street and US 1, SR 514 is currently operating at LOS C. A copy of the FDOT generalized service volume table for urbanized areas is provided in the **Appendix F**.

4 Development of Design Characteristics

The design traffic characteristics established in this section will be used in developing design hour volumes (DHV's) for the intersections and directional design hour volumes (DDHV's) for the roadway segments for the future conditions. These characteristics are determined based on the procedures outlined in the FDOT's Design Traffic Forecasting Handbook, 2014.

4.1 Standard K Factor

Based on the recent directions from the FDOT District Office, a Standard K Factor of 9.0% for urban areas was used for the study corridors including SR 514, Medplex Parkway, Weber Road, Corey Road, Marie Street and US 1/SR 5.

4.2 D Factor

The D factor represents the directional factor occurring in the traffic flow during the highest hour. In determining this factor for SR 514 and the side streets, statewide and national guidelines were compared to the field collected traffic counts and traffic information contained in the latest available Florida Traffic Information (FTI) DVD.

The measured D for the study area roadways including the peak directions are shown in **Table 2.** The average of the measured D factors for SR 514 corridor within the study limits is 60.6%. The measured D factors for the side streets are well within the FDOT recommended range of D values, with the exception of south of Corey Road (74.9%).

Table 5 illustrates the historical D factors from four FDOT count stations along SR 514. The factors were obtained for five years from year 2009 to year 2013. The average, minimum and maximum D factors over the five years for SR 514 corridor are 55.83%, 53.6% and 61.0%, respectively.

Table 6 provides the current recommended range of D values from the FDOT Project Traffic Forecasting Handbook (2014) and the Highway Capacity Manual for an urban arterial.

Table 5: Historical FTI Data - D Values

Year	Station 700427	Station 700379	Station 700127	Station 701001
2009	61.02%	61.02%	61.02%	61.02%
2010	56.02%	56.02%	56.02%	56.02%
2011	54.30%	54.30%	54.30%	54.30%
2012	53.60%	53.60%	53.60%	53.60%
2013	54.20%	54.20%	54.20%	54.20%
Average	**55.83%**	**55.83%**	**55.83%**	**55.83%**
Minimum	**53.6%**	**53.6%**	**53.6%**	**53.6%**
Maximum	**61.02%**	**61.02%**	**61.02%**	**61.02%**

Table 6: Recommended Range of D Values

Area & Highway Type	Values	Source	
		FDOT[1]	HCM[2]
Urban Arterial	Low	50.8%	52.0%
	Average	57.9%	54.5%
	High	67.1%	57.0%

Notes:
1) Source: FDOT Project Traffic Forecasting Handbook, January 2014, Figure 2.9
2) Source: HCM 2010

4.2.1 SR 514 Corridor

The average measured D from the 2014 traffic counts and historical D factors is 60.0%. Therefore, being conservative without overestimating future design traffic volumes, **a D factor of 60% (average of historical and measured values) is recommended for the SR 514 corridor.**

4.2.2 Side Streets

For purposes of this study, the measured D values from the 2015 traffic counts will be used for the side street as recommended D factors. However, the recommended D factors will be restricted to the FDOT recommended high D value for an urban arterial. For US 1 corridor, a D-factor of 54% is recommended as identified in the reevaluation study conducted in July 2014.

4.3 T_{daily} & T_{peak} Factors

The daily truck factor, T_{daily} represents the percentage composition of medium sized and heavy trucks occurring in the traffic stream for a 24-hour period. The peak hour truck factor, T_{peak}, is the percentage of truck traffic during the peak hour and is recommended as one-half of the T_{daily} factor in the Project Traffic Forecasting Handbook.

The year 2015 measured T_{daily} factors for the study area roadways are shown in **Table 2.** T_{daily} factor of 5.2%was measured for the SR 514 corridor.

Table 7 contains the historical T_{daily} factors from the FTI DVD for the five years from 2009 to 2013. The average, minimum and maximum T_{daily} factors over the five years for SR 514 corridor are shown in the table for five stations.

Table 7: Historical FTI Data - T_{daily} Values

Year	Station 700427	Station 700379	Station 700127	Station 701001
2009	7.80%	5.60%	5.60%	6.70%
2010	7.80%	5.40%	5.40%	6.70%
2011	4.90%	5.40%	5.40%	5.80%
2012	7.80%	7.30%	7.30%	6.70%
2013	7.80%	6.70%	6.70%	5.60%
Average	**7.22%**	**6.08%**	**6.08%**	**6.30%**
Minimum	**4.90%**	**5.40%**	**5.40%**	**5.60%**
Maximum	**7.80%**	**7.30%**	**7.30%**	**6.70%**

4.3.1 SR 514 Corridor

The average measured T_{daily} from the 2015 traffic counts and historical T_{daily} factors is 7%. A T_{daily} **(T_{peak})** factor of **7.0% (3.5%)** is recommended for the SR 514 corridor, based on the existing count information.

4.3.2 Side Streets

For the purposes of this study, the measured truck factor values from the 2015 traffic counts will be used for all the side streets. For US 1, since there was no count performed during this study, the previously recommended T_{daily} **(T_{peak})** factors of **9.5% (7.2%) is recommended.**

4.4 Recommended Design Traffic Characteristics

Based on the afore-mentioned discussions, the following **Table 8** provides a summary of the recommended design traffic characteristics for this study.

Table 8: Recommended Design Traffic Characteristics

Roadway / Segment	Recommended Design Characteristics			
	Standard "K" Factor	"D" Factor	"T_{daily}" Factor	"T_{peak}" Factor
Mainline Characteristics				
SR 514	9.0%	60.0%	7.0%	3.5%
Side Street Characteristics				
US 1	9.0%	54.0%	-	7.0%
Weber Road	9.0%	61.0%	-	Same as existing*
Corey Road	9.0%	63.0%	-	Same as existing*
Medplex Parkway	9.0%	66.0%	-	Same as existing*
Marie Street	9.0%	60.0%	-	Same as existing*

Note: Truck factors obtained from Year 2015 TMC will be used for future conditions

5 Development of Future Traffic Forecasts

The development of traffic projections for the study corridor requires the examination of historical growth, proposed development levels within the corridor vicinity, and a basic understanding of local traffic circulation patterns and travel characteristics of the corridor.

The travel demand model applied for this study was based on the latest Central Florida Regional Planning Model, Version 5.0 (CFRPM V5.0). This model was validated for the year 2011 in the previous version of the study in 2012, and was used for the July 2014 update. The current update of this DTTM utilizes the previously validated model, and therefore no validation of the model was performed as part of this update. The model based growth rate was used in conjunction with the previously recommended growth rates and the population growth rate projections by Bureau of Economic and Business Research (BEBR) to forecast the future no-build and build conditions traffic volumes.

5.1 Design Period

Based on the latest information provided by District Five for this DTTM update, the following design periods were used to provide the future traffic forecasts, conduct roadway and intersection operation analyses for the study corridor.

- Opening Year – 2025
- Design Year – 2045

5.2 Programmed and Planned Improvements

5.2.1 Programmed Improvements

The following programmed improvements are scheduled within the study area based on the latest Space Coast TPO TIP (FY 2015-2019).

- Final Engineering Study Phase for SR 507 from Malabar Road to just south of Palm Bay Road (Financial Project ID 237650-6)

- Preliminary Engineering and PD&E Study Phases for SR 514 between Babcock Street to US 1 (Financial Project ID 430136-1)

5.2.2 Planned Improvements

The following cost feasible planned improvements are included in the 2035 Space Coast LRTP near the study area.

- Babcock Street from Malabar Rd to New Palm Bay Parkway Interchange: Widen Road (2 to 4 Lanes); Year: 2026 - 2030
- Malabar Road from Babcock Street to US 1: Widen Road (2 to 4 Lanes); Year: 2026 - 2030
- Malabar Road from Minton Road to St. Johns Heritage Parkway: Widen Road (2 to 4 Lanes); Year: 2031 - 2035
- Babcock Street from US 192 to Malabar Road: Multimodal Emphasis with Intelligent Transportation System (ITS)
- US 1 from RJ Conlan to Malabar Road: Multimodal Emphasis (with ITS)
- Babcock Street from Malabar Rd to Foundation Park: Widen Road (2 to 4 Lanes); Year 2026 - 2030

5.3 Future Travel Demand

The development of traffic forecasts for study corridors is not complete without a review of the historical traffic growth, population estimates along the corridor and a review of the future year model forecasts. Due to the specific conditions associated with any roadway, it is necessary to utilize the various methods in projecting future traffic forecasts (such as trends analysis, population estimates, Travel Demand Models and previous studies) for comparison purposes. The following sections discuss the various methodologies used in developing future travel demand in the study area.

5.3.1 Historical Traffic Growth

Based on the historic count information obtained from the FDOT, trends analyses were performed for the following FDOT count stations.

- SR 514, West of SR 507 (Site 700427)

- SR 514, East of SR 507 (Site 700379)
- SR 514, East of Corey Road (Site 700127)
- SR 514, West of US 1 (Site 701001)

These count stations, provided historic counts ranging from 2002 to 2013. Based on this historical data, future growth trends were established by a least square linear regression of the historic counts as shown in **Table 9**. The historical trends analysis resulted in negative growth rates for all but the segments for SR 514 except SR 514, East of SR 507. The Trends analysis for SR 514, East of SR 507 resulted in an annual growth rate of 1.02% with an R-squared value of 20.35%, less than the recommended value of 75%. Therefore, the historical growths produced by trends analyses were not used in this study. These trend analysis sheets are provided in **Appendix G.**

Table 9: Trends Analysis

Roadway Segment/Station	R^2	Growth
SR 514, West of SR 507 (Site 700427)	70.42%	-1.77%
SR 514, East of SR 507 (Site 700379)	20.35%	1.02%
SR 514, East of Corey Road (Site 700127)	59.85%	-4.42%
SR 514, West of US 1 (Site 701001)	75%	-4.18%

5.3.2 Brevard County Population Projections

In addition to the Trends Analyses, population projection obtained from the BEBR published by the University of Florida were used for comparison purposes. **Table 10** shows the year 2013 population data and the high and medium population estimates for the Year 2040 along with the corresponding growth rate. Based on **Table 10**, the high and medium population estimates obtained from BEBR reported an annual growth rate of 1.83% and 0.87% per year, respectively. The BEBR population projection data are provided in **Appendix H**.

Table 10: Population Analysis – BEBR Estimates

Projection Type	2013	2040	Annual Growth Rate
Brevard - Medium Projection	548,424	677,500	0.87%
Brevard - High Projection	548,424	819,700	1.83%

5.3.3 Travel Demand Model

The CFRPM model based traffic projections for the No Build and Build Alternatives were assessed for their reasonableness. The model AADTs shown in the **Table 11** for both No Build and Build scenarios were obtained by multiplying the Model PSWADT with the 2011 MOCF value of 0.91.

For the No Build scenario (**Table 11**), annual average growth rate of 2.13% per year between the base year 2011 and the model year 2035 was exhibited along SR 514 corridor. Simple annual growth rates of 3.8%, 3.0%, 13% and 0.15% between the base year 2011 and model year 2035 were exhibited along the US 1 north of SR 514, US 1 south of SR 514, Weber Road and Corey Road, respectively.

Based on **Table 11**, under the Build scenario, annual average growth rate of 4.03% per year between the base year 2011 and the model year 2035 was exhibited along SR 514 corridor. Simple annual growth rates of 3.93%, 2.88%, 10.97% and 0.05% between the base year 2011 and model year 2035 were exhibited along the US 1 north of SR 514, US 1 south of SR 514, Weber Road and Corey Road, respectively. The model plots for the No Build and Build Alternatives were provided in **Appendix I** of this report**.**

5.3.4 Previous Studies

For comparison purposes, recommended growth rates from the "*For SR 514 Project Development and Environmental Study From Babcock Street (SR 507) to US 1, dated July 2014 Update*" prepared by GMB were also considered. As shown in **Table 11**, the previous study recommended 2.45% growth between Babcock Street to Weber Road and 3.2% growth between Corey Road to US 1

under the Build Alternative. The existing and projected AADT volumes for the Build conditions along SR 514 from the previous study is provided in **Appendix J** of this report.

Table 11: Comparison of Growth Rates

Roadway / Segment	CFRPM Base Year (2011) AADT	CFRPM Horizon Year (2035) AADT				Previous Study[1]	Previous Study[1]	BEBR Population Growth Rate (Medium Projection)
		No Build Scenario	Growth Rate (Linear)	Build Scenario	Growth Rate (Linear)	NB Growth Rate (Linear)	Build Growth Rate (Linear)	
Mainline Characteristics								
SR 514								
West of Babcock Street	-	50,432	-	52,023	-			
Babcock Street to Weber Road	16,117	19,825	0.96%	27,138	2.85%	1.8%	2.5%	
Weber Road to Corey Road	12,290	19,356	2.40%	24,902	4.28%	-	-	
Corey Road to US-1	10,940	18,874	3.02%	24,005	4.98%	1.8%	3.2%	
Average			2.13%		4.03%			
Cross Street Characteristics								0.87%
Babock Street North of SR 514	33,625	59,120	3.16%	58,968	3.14%	-	-	
Babock Street South of SR 514	17,422	37,065	4.70%	37,566	4.82%	-	-	
Weber Road	1,790	7,376	13.00%	6,503	10.97%	9.0%	9.0%	
Corey Road S of SR 514	3,878	4,020	0.15%	3,928	0.05%	4.3%	4.3%	
US-1 N of SR 514	21,172	40,461	3.80%	41,152	3.93%	5.40%	5.40%	
US-1 S of SR 514	20,106	34,603	3.00%	34,012	2.88%	5.40%	5.40%	

Notes:

1. Previous Study refers to the Design Traffic Technical Memorandum "SR 514 PD&E Study from SR 507 (Babcock Street) to US 1 dated July 2014" prepared by GMB. These are the recommended growth rates from the previous study.

5.4 Recommended Growth Rates

The growth rates obtained from Trends analysis, FSUTMS models, and population estimates were compared to get the recommended growth rates. Comparing the growth rates from the above sources, annual growth rates of 1.8% (based on BEBR High Projection) and 3.2% (based on CFRPM model) per year are recommended for developing future traffic projections on SR 514 through the opening year 2025 for No-Build and Build Scenarios, respectively. For design year 2045 along the mainline SR 514 corridor, future traffic projections were established upto the model horizon year 2035 and then the medium population growth rate of 0.87% was applied to the Year 2035 volumes to project the traffic for 2045 for both no-build and build conditions.

Simple annual growth rates of 5.4%, 9.0% and 4.3% per year (based on CFRPM Model Analysis) were recommended for developing future traffic projections on US 1, Weber Road and Corey Road, respectively for No Build and Build Scenarios for the opening year 2025. For these side streets for the design year 2045, future traffic projections were established upto the model horizon year 2035 and then the medium population growth rate of 0.87% was applied to project the traffic for 2045 for both no-build and build conditions. No growth rate was used for Medplex Parkway for no-build or build scenario since it was not anticipated to have any growth. For Marie Street, BEBR medium population growth rate of 0.87% was used for both no-build and build conditions. The growth rate recommendations are provided in **Table 12.**

Table 12: Recommended Growth Rates

Roadway / Segment	(Existing-2035)		(2035-2045)	
	No Build	**Build**	**No Build**	**Build**
Mainline				
SR 514	1.8%	3.2%	0.87%	0.87%
Side Street				
US 1	5.4%	5.4%	0.87%	0.87%
Weber Road	9%	9%	0.87%	0.87%
Corey Road	4.3%	4.3%	0.87%	0.87%
Marie Street	0.87%	0.87%	0.87%	0.87%
Medplex Parkway	0%	0%	0%	0%

The projected AADTs for the opening year and design year for No Build and Build alternatives are shown in **Figure 7** and **Figure 8**, respectively.

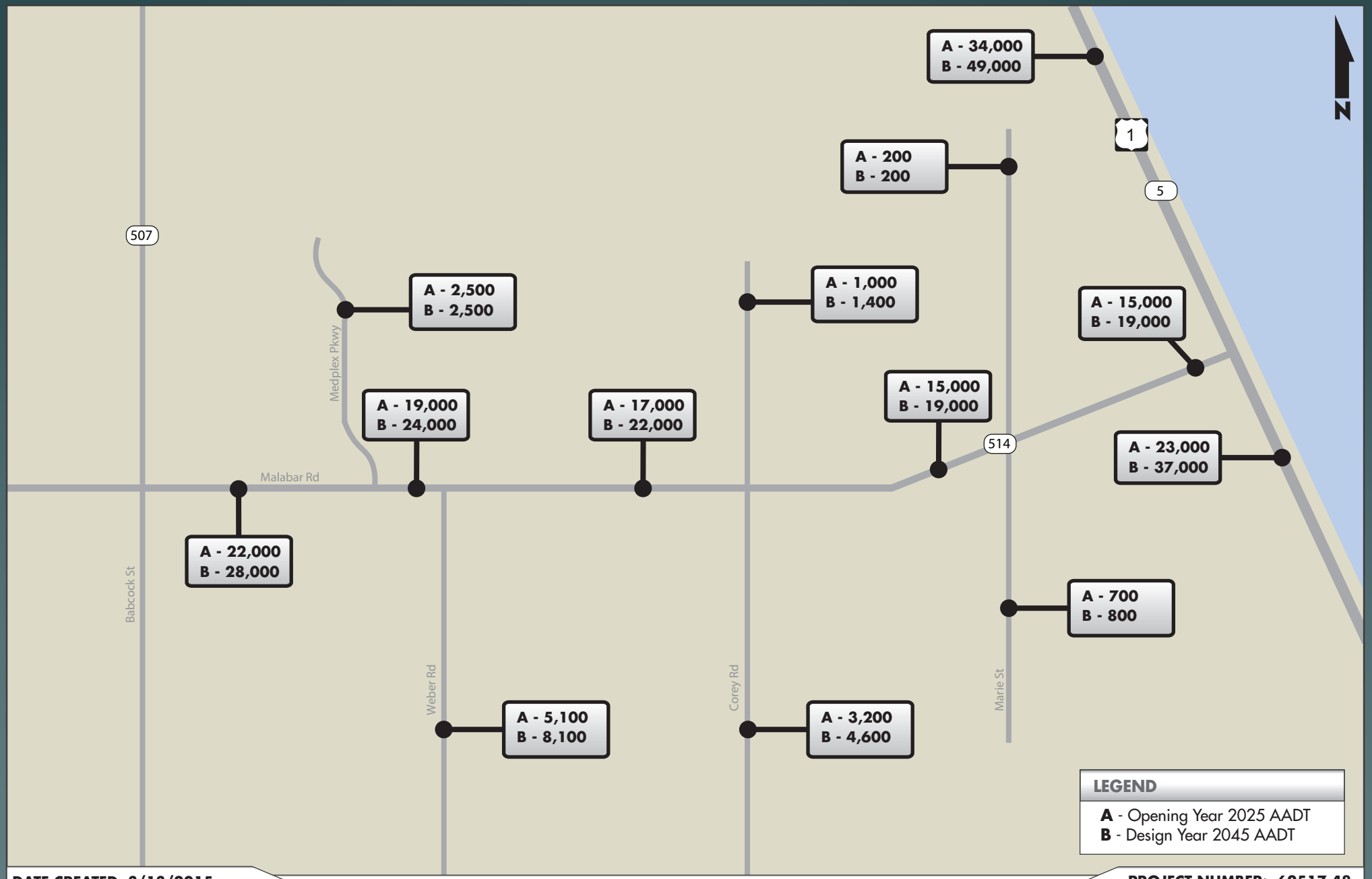

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FIGURE 7
Future AADT Volumes
No Build Scenario

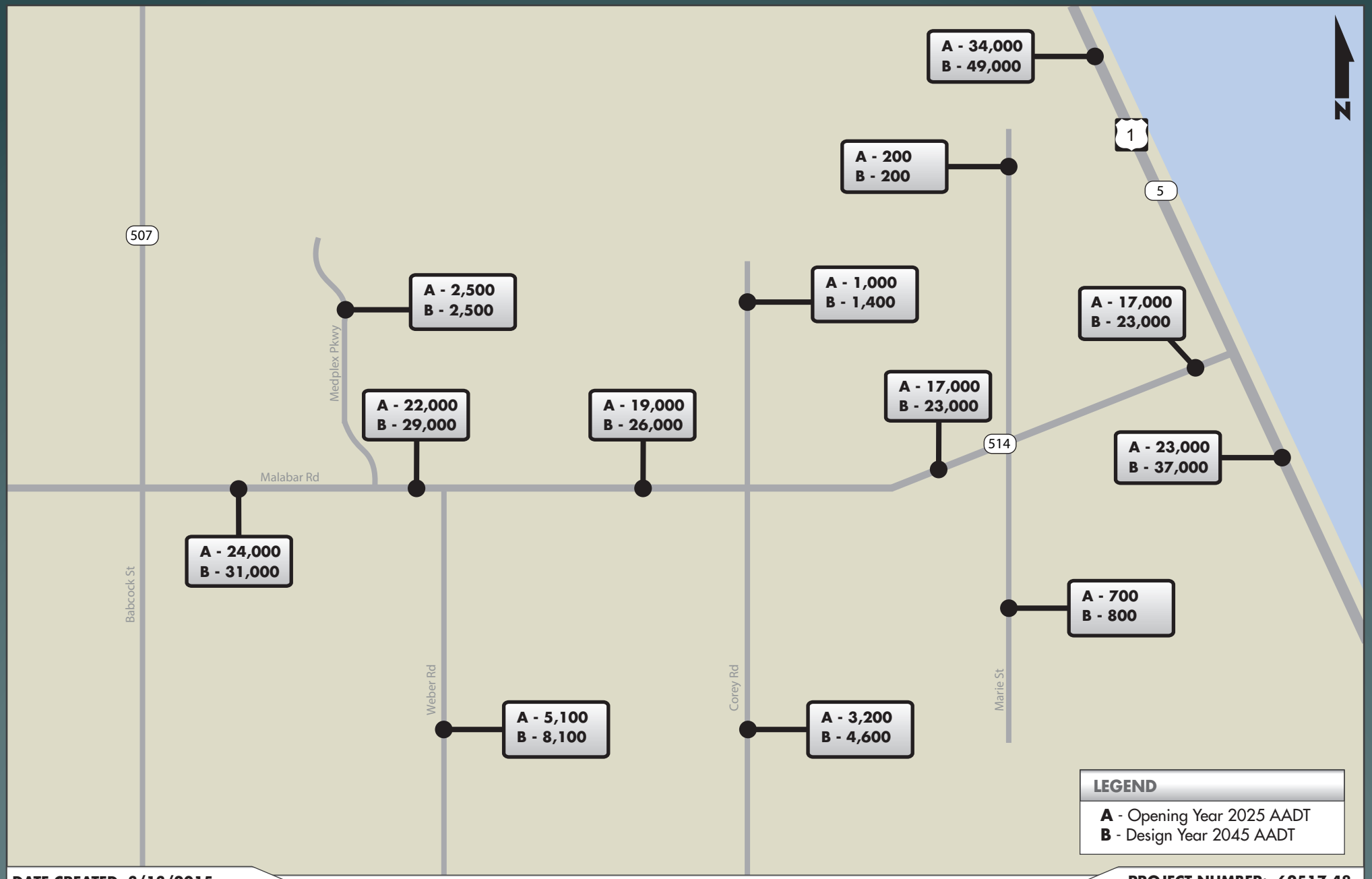

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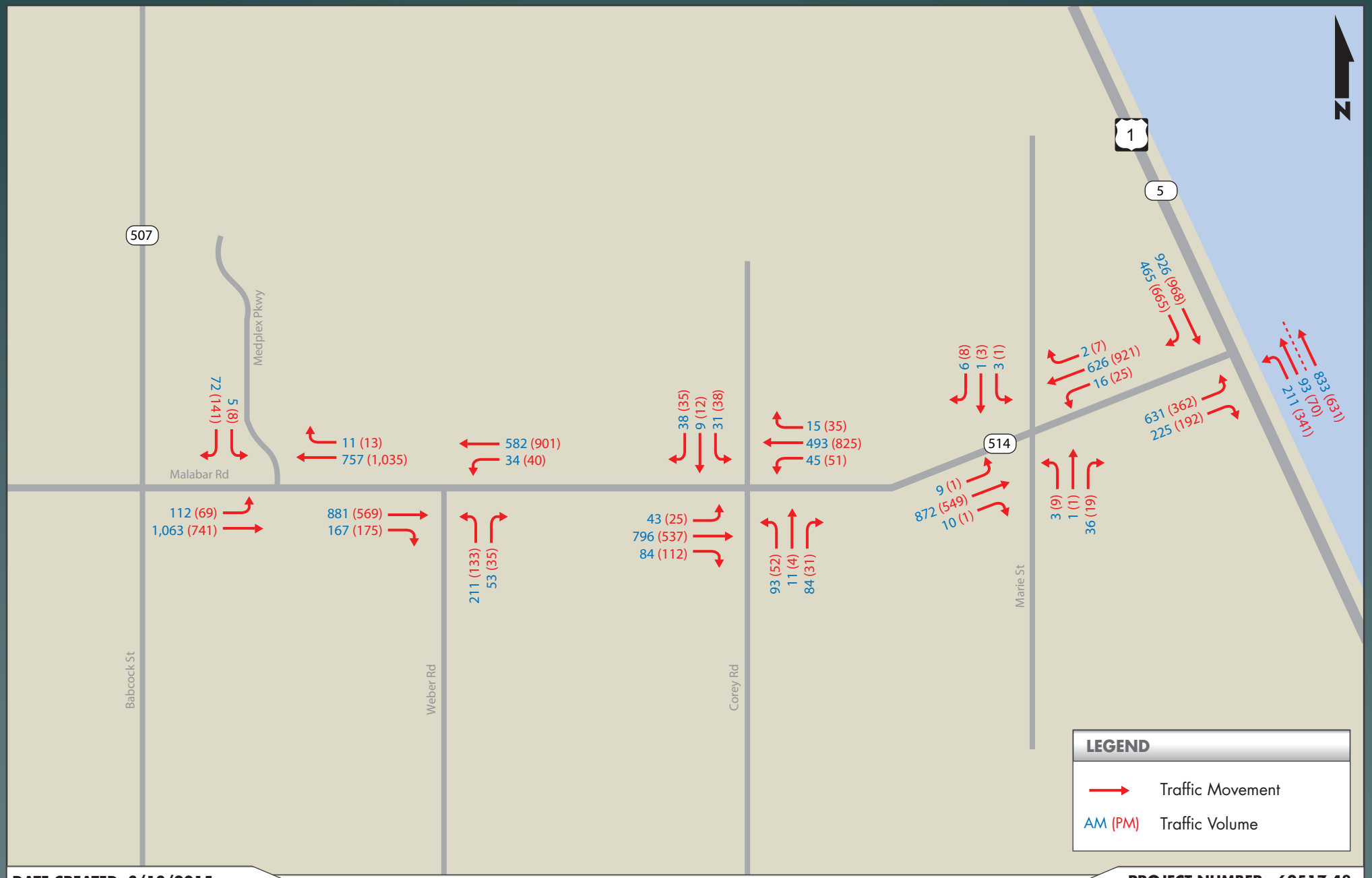
FIGURE 8
Future AADT Volumes
Build Scenario

5.5 Intersection Design Hour Volumes

The existing and future year AADT's for the No Build and Build Alternatives along with the recommended traffic characteristics were used to develop the design hour volumes (DHVs) for both the a.m. and p.m. design hours at the intersections for the opening and design years.

The DHV's for the intersections were developed using the TURNS5 spreadsheet, which balances AADT's and calculates DHV's based on Standard K and D factors used as input into the program. The estimated design hour volumes for the a.m. and p.m. design hours from TURNS5 spreadsheet were assessed for reasonableness. Adjustments were made and are reported in the TURNS5 output sheets included in **Appendix K**. In general, it was made sure that the year 2025 and 2045 design hour volumes were higher than the existing peak hour volumes. These adjustments are necessary because accepting an estimated volume that is unrealistically large may lead to over design and accepting an estimated volume that is too small may result in an inadequate design.

The future year a.m. and p.m. design hour volumes for the No-Build Alternative are shown in **Figures 9 and 10** for the years 2025 and 2045, respectively. The future year a.m. and p.m. design hour volumes for the Build Alternative are shown in **Figures 11 through 12** for years 2025 and 2045, respectively.



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PROJECT NUMBER: 62517.48

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FIGURE 9
No-Build Alternative Opening Year 2025
Turning Movement Volumes

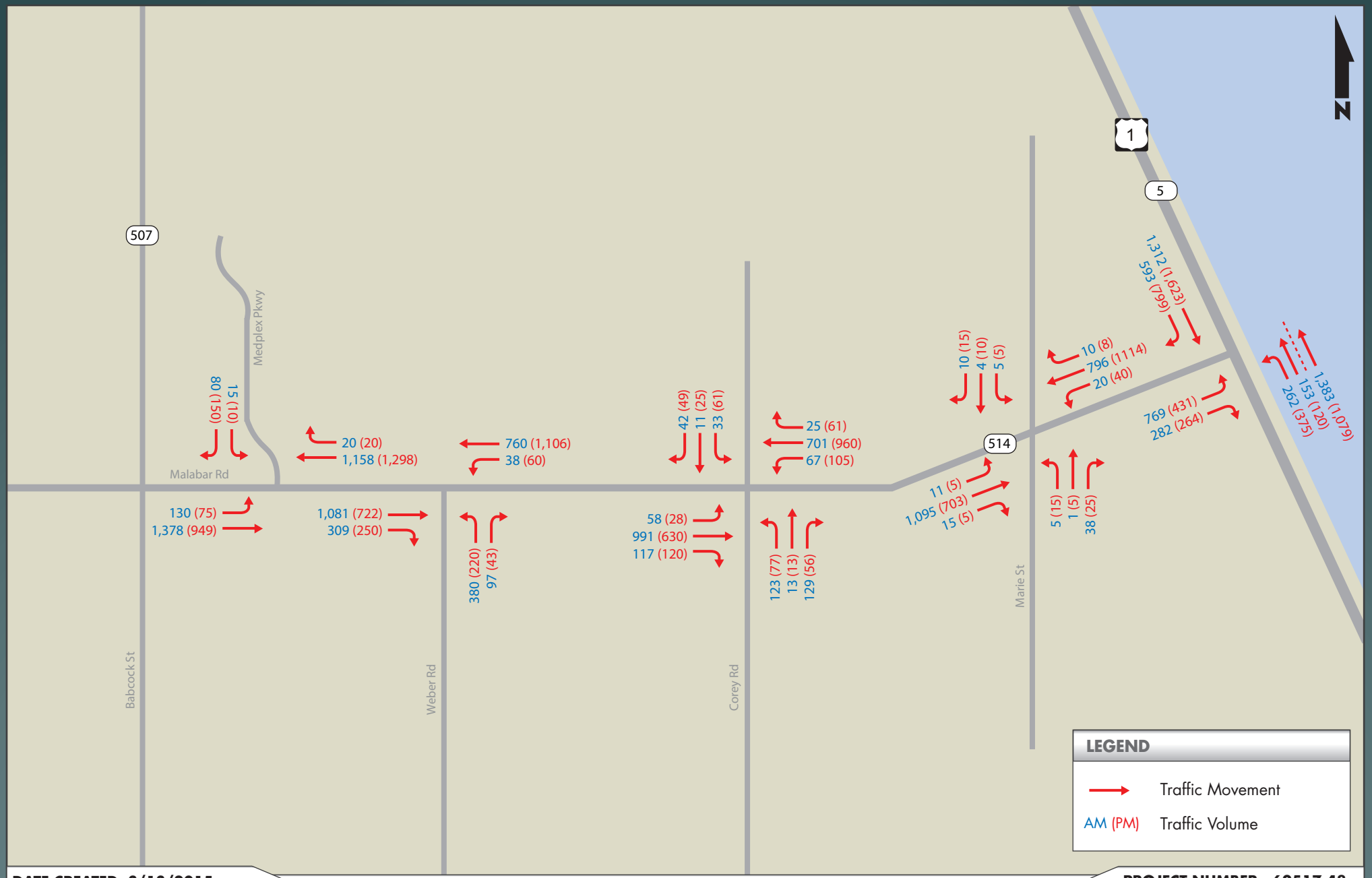

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FIGURE 10
No-Build Alternative Design Year 2045
Turning Movement Volumes

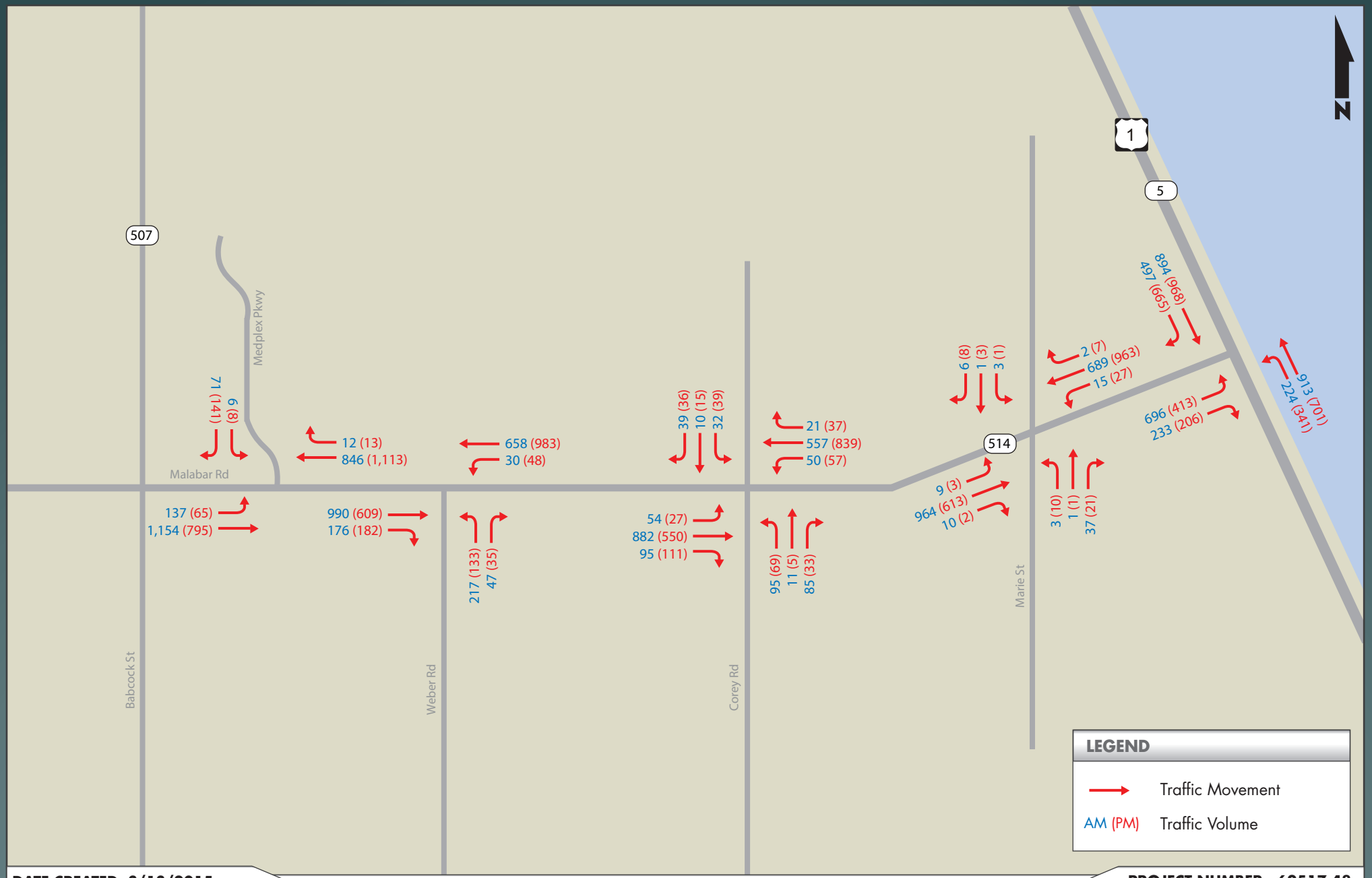

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FIGURE 11
Build Alternative Opening Year 2025
Turning Movement Volumes

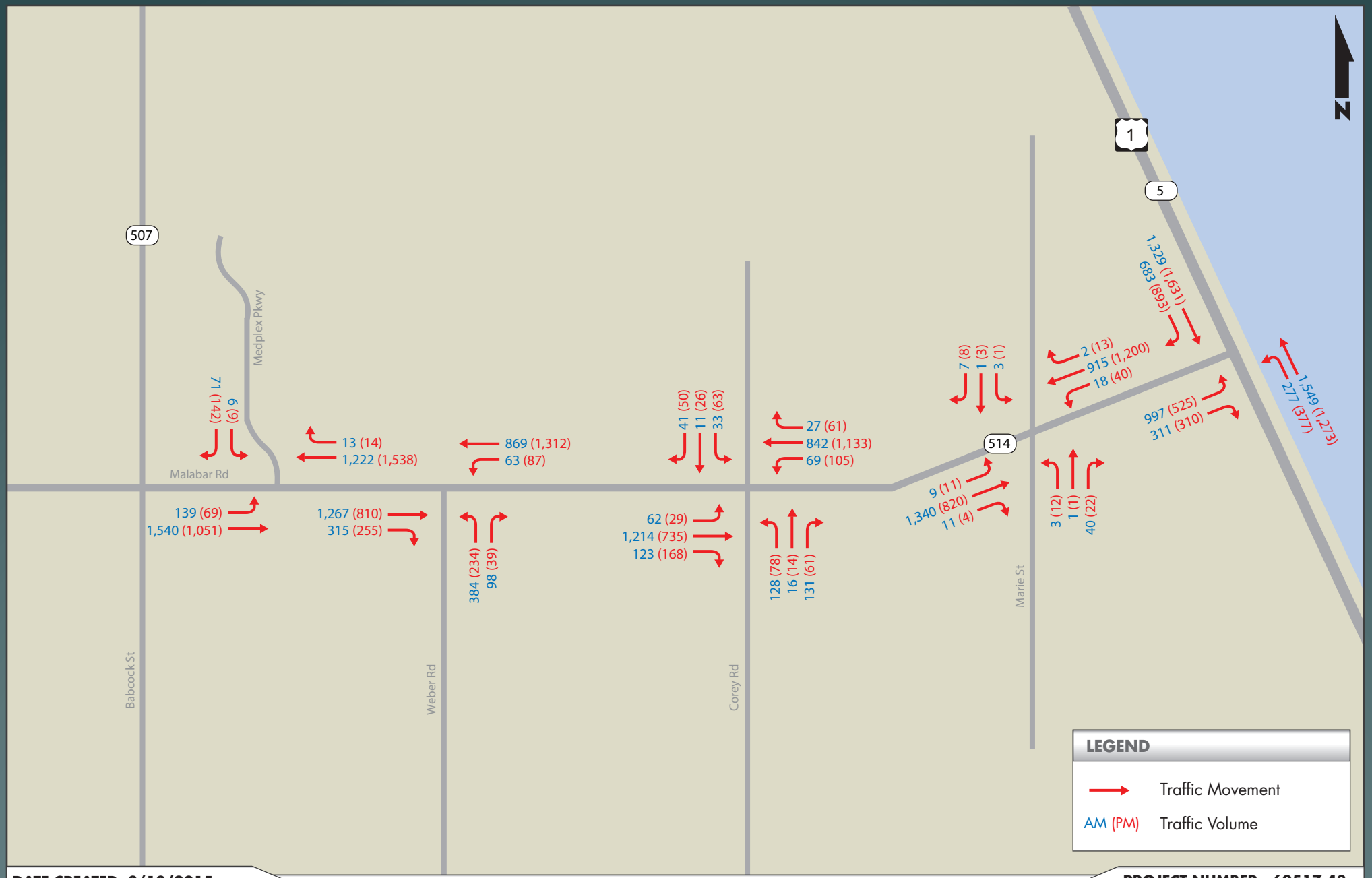

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FIGURE 12
Build Alternative Design Year 2045
Turning Movement Volumes

6 Future Operational Analysis

This section presents the results of the traffic operational analysis for the No Build and Build Alternatives. In addition, the unsignalized intersections 1) SR 514 at Weber Road, 2) SR 514 at Corey Road were for evaluated for future signal requirements. The Build Alternative was designed to examine how the widening of SR 507 in the study area and different geometric improvements at the study intersections would affect the traffic flow. The level of service for the study intersections was determined using Synchro software version 8.0. Analysis techniques utilized in the study include the signalized and unsignalized intersections. The outputs from Synchro 8 were presented as results for the intersection LOS analysis.

6.1 Future Signal Requirements

Initially, unsignalized intersections 1) SR 514 at Weber Road and 2) SR 514 at Corey Road were evaluated for future signal requirements under the No Build Alternative. The other unsignalized intersections at Medplex Parkway and Marie Street with SR 514 have very low peak hour as well as future AADT volumes on the minor street, and these volumes would not warrant a signal based on the minimum vehicular volume or interruption of continuous traffic criteria. Therefore, a signal warrant analysis was not performed for these two unsignalized intersections. For Weber Road and Corey Road, signal warrant analysis was performed for no-build and build conditions. The need for future signal requirements was evaluated using signal warrant 1 as specified in the Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition. Since information required for all other warrants cannot be predicted, only warrant 1 (the Minimum Vehicle Volumes and interruption of continuous traffic warrants) was used for future conditions,

In determining the future volumes for signal warrant analysis, initially, the future AADT volumes at this intersection were segregated into hourly volumes for a 24-hour period using percentages from the existing daily volume counts. Then, the eight highest hourly volumes from these calculated 24-hour volumes were used in the signal warrant analysis. Since the critical speed is greater than 40 MPH, the 70% criteria for signal warrant 1 is used.

Following are the results of the signal warrant analysis for the above-mentioned two intersections under the No Build Alternative:

- Warrant 1 was fulfilled at SR 514 @ Weber Road and SR 514 @ Corey Road starting from the opening year 2025 for no-build conditions.
- Warrant 1 was fulfilled at SR 514 @ Weber Road and SR 514 @ Corey Road starting from the opening year 2025 for build conditions.

Since signals were warranted for both intersections from the opening year 2025, design year 2045 warrant analysis was not needed to be performed. It is important to note that all the unsignalized intersections within the study limits have to be revisited in the future to determine if any of applicable signal warrants will be satisfied. The actual determination of when this location will be signalized shall be based on actual traffic counts and other pertinent data required for signal warrant analysis. The future signal warrant sheets are provided in **Appendix L**.

6.2 No Build Alternative Operational Analysis

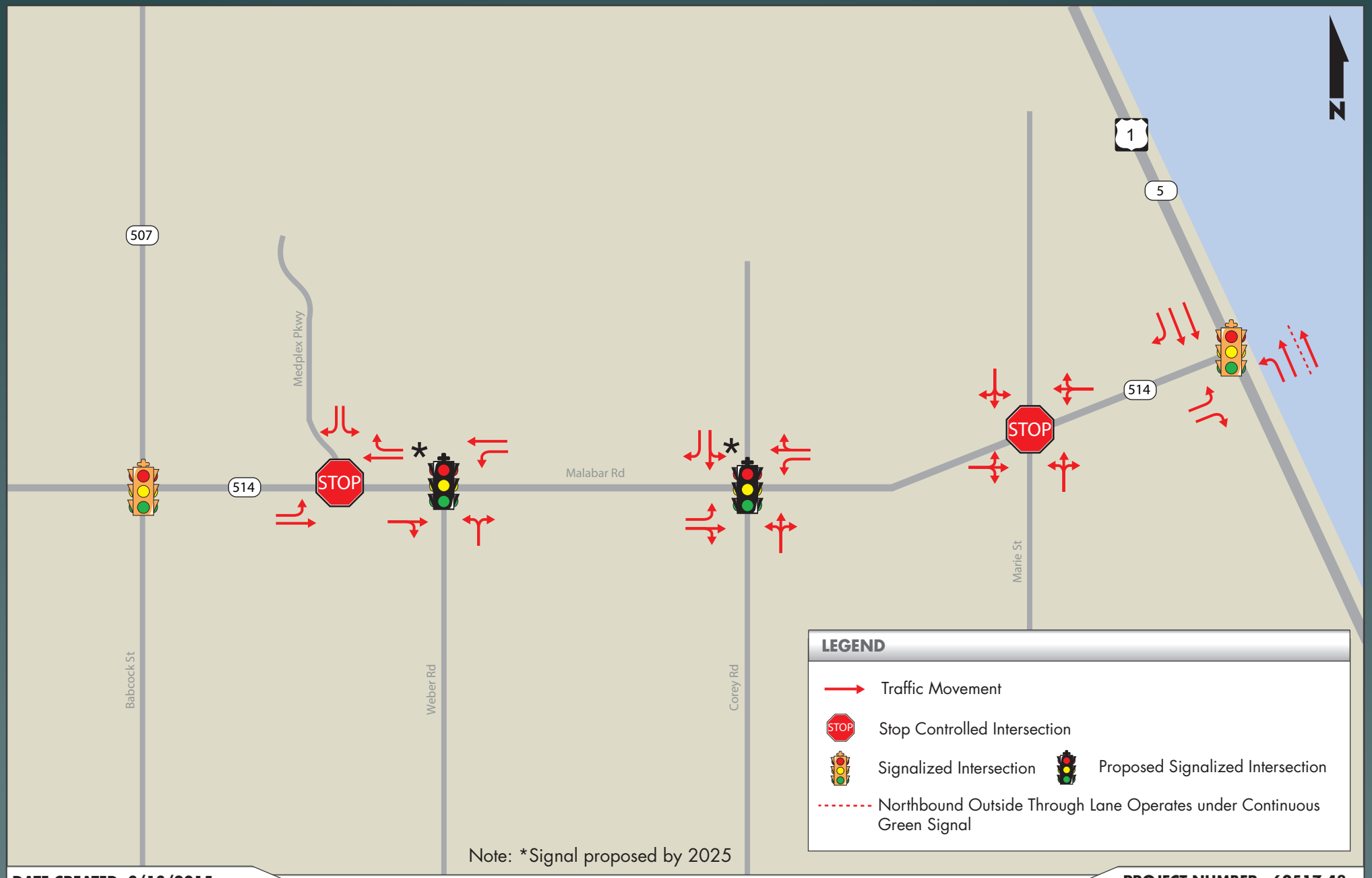
6.2.1 No Build Geometry

The No Build intersection geometry (**Figure 13**) is same as the existing geometry with the exception of the following traffic control improvements.

- Signalize the intersection of SR 514 at Weber Road by the opening year 2025.
- Signalize the intersection of SR 514 at Corey Road by the opening year 2025.
- Provide a westbound left turn lane on SR 514 and Weber Road intersection. This is consistent with the latest Design Traffic Forecast study for SR 514 between west of Weber Road and Corey Road (Financial Project ID 413761-1)
- Provide eastbound and westbound left turn lanes on SR 514 and Corey Road intersection. This is consistent with the latest Design Traffic Forecast study for SR 514 between west of Weber Road and Corey Road (Financial Project ID 413761-1)

6.2.2 Intersection Operational Analysis

Intersection operational analyses were performed for the opening and design years for the No Build Alternative for the a.m. and p.m. design hours. The results of the intersection analysis are summarized in **Table 13** and the Synchro outputs are provided in **Appendix M**.



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Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 13
No Build Geometry

6.2.2.1 Opening Year 2025 - AM & PM Design Hours

As shown in **Table 13**, under the No Build Alternative, the following intersections are projected to operate below the adopted LOS standard "D" during the 2025 traffic conditions.

- The minor street approach at SR 514 and Corey Road (a.m. design hour)
- The minor street approaches at SR 514 with Medplex Parkway and Marie Street intersections (p.m. design hours)

Table 13: Future Intersection LOS Summary - No Build Alternative

Study Intersection	Traffic Control	Adopted LOS	AM Design Hour (Delay/LOS)		PM Design Hour (Delay/LOS)	
			2025	2045	2025	2045
Medplex Parkway	Stop	D	10.3/B	13.9/B	11.7/B	14.1/B
			32.0/D	64.9/F	40.5/E	116.8/F
Weber Road	Signal	D	50.0/D	152.9/F	15.6/B	55.2/E
Corey Road	Signal	D	75.6/E	119.6/F	39.5/D	76.5/E
Marie Street	Stop	D	10.2/B	11.6/B	10.5/B	11.4/B
			34.2/D	91.7/F	36.6/E	177.5/F
US 1	Signal	D	34.9/C	91.8/F	25.2/C	110.4/F

Notes:

1. Synchro based outputs are presented in this table for both the signalized and unsignalized intersections

2. Overall intersection delay and LOS results are reported for signalized intersections

3. In case of unsignalized intersections, worst case results for both major street delay/LOS (in top row) and minor street delay/LOS (in bottom row) are reported

4. Result shown in red color exceeds the adopted LOS standard

6.2.2.2 Design Year 2045 - AM & PM Design Hours

As shown in **Table 13**, under the No Build Alternative, the following intersections are projected to operate below the adopted LOS standard "D" during the 2045 traffic conditions.

- Minor street approaches of SR 514 and Weber Road, Corey Road and Marie Street (a.m. and p.m. design hours)
- The minor street approach at SR 514 and Medplex Parkway (a.m. and p.m. design hour)
- SR 514 and US 1 (a.m. and p.m. design hours)

6.2.3 Arterial Level of Service Analysis

The roadway segments level of service analysis was performed for the opening year 2025 and design year 2045 no-build conditions a.m. and p.m. peak hour conditions using FDOT's generalized planning analysis. HCS software was not used for the arterial level of service analysis because of the unique signal phasing pattern of SR 514 @ US 1 signalized intersection, where it has an exclusive northbound outside though lane operating free in the no-build conditions for both opening and design year. As a result, the FDOT's generalized service volumes was used. The roadway peak-hour peak-direction volumes were obtained by using recommended K and D factors for SR 514 applied to the future recommended AADTs. The peak-hour peak-direction volumes were compared with service volumes provided in the FDOT's generalized LOS tables to determine the future arterial operating conditions.

Table 14 shows the arterial level of service results for the no-build conditions. As shown in **Table 14,** SR 514 between Medplex Parkway to Corey Road is expected to operate below LOS D in the no-build conditions from opening year 2025. The segment between Corey Road and US 1 is expected to operate below LOS D in the design year. A copy of the FDOT generalized service volume table for urbanized areas is provided in the **Appendix F**.

Table 14: Future Arterial LOS Summary - No Build Alternative

Roadway	#. Of Lanes	FDOT LOS Standard	Maximum Service Volume*	Pk. Hr. Pk. Dir. Volume		LOS	
SR 514				**2025**	**2045**	**2025**	**2045**
Medplex Parkway to Weber Road	2	D	924	1,048	1,166	E	E
Weber Road to Corey Road	2	D	924	934	1,171	E	E
Corey Road to Marie Street	2	D	924	810	1,020	D	E
Marie Street to US 1	2	D	968	832	1,042	D	E

Note: Maximum service volumes have been adjusted for presence of turn lanes as per 2012 FDOT Level Of Service handbook Table 7

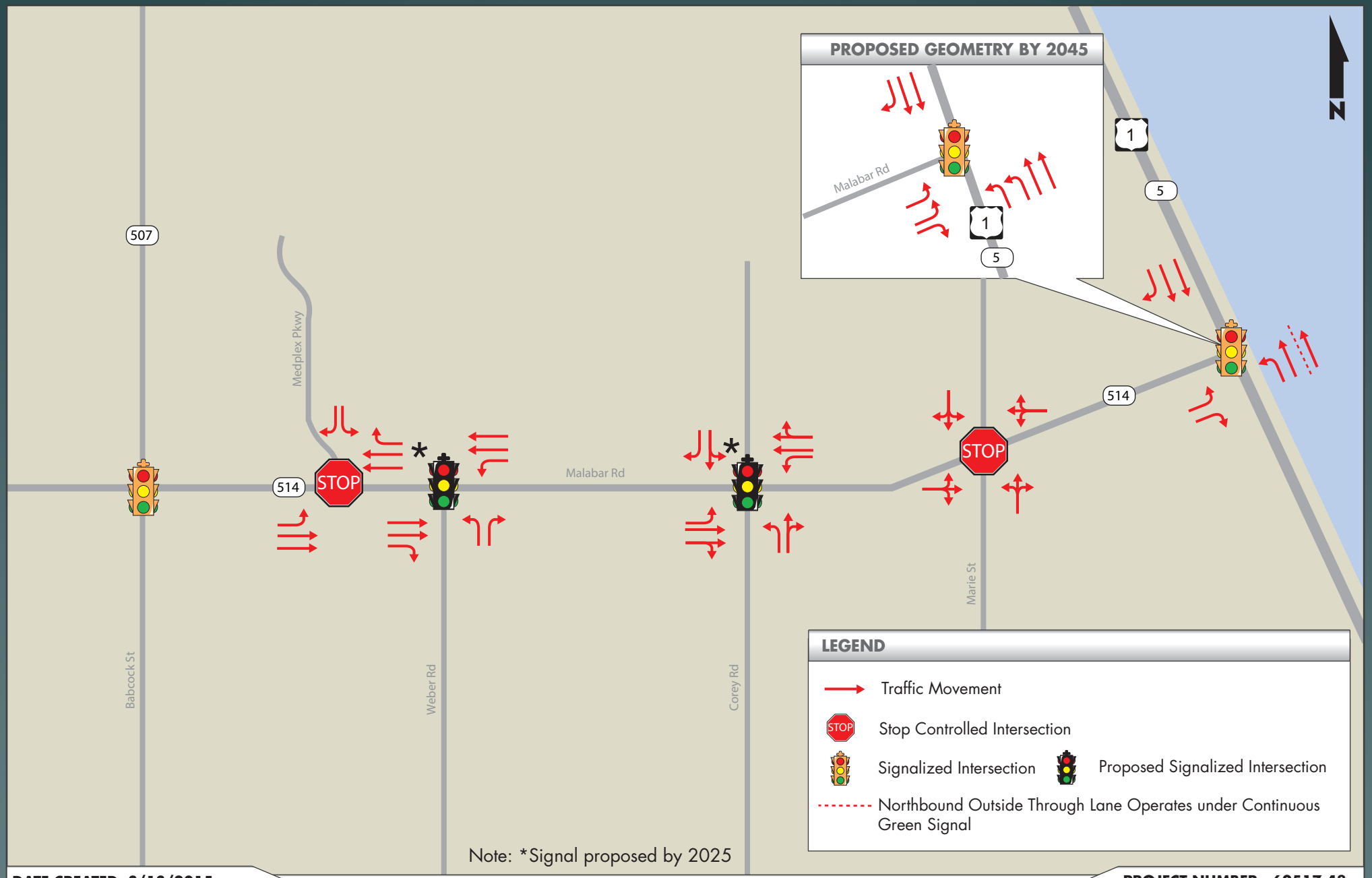
6.3 Build Alternative Operational Analysis

6.3.1 Build Geometry

The proposed build geometry for the SR 514 between Babcock Street and US 1 includes widening of SR 514 from a two to four lane section between Babcock Street to Corey Road, and dropping the four lane section to a two lane section east of Corey Road. In addition, the following intersection improvements are included in the Build Alternative starting from the opening year 2025 (**Figure 14)**.

- SR 514 and Weber Road
    - Proposed signal by the opening year 2025.
    - An exclusive eastbound right turn lane,
    - An exclusive westbound left turn lane, and
    - An exclusive northbound left turn lane.
- SR 514 and Corey Road
    - Proposed signal by the design year 2025.
    - An exclusive eastbound left turn lane,
    - An exclusive westbound left turn lane, and
    - An exclusive northbound left turn lane.
- SR 514 and US 1
    - Maintain the existing geometry through opening year 2025 with a free northbound outside through lane.
    - By the design year 2045, provide an additional (second) eastbound left turn lane and additional (second) northbound left turn lane; these improvements will eliminate the free northbound outside through movement (Florida T-intersection) at this intersection.

In addition to the build alternative improvements, the recently completed access management plan report (dated November 2014) was also consulted for any proposed access modifications that can affect the design year geometry. The access management plan (See **Appendix N**) does not alter the build geometry outlined above.



DATE CREATED: 3/13/2015

PROJECT NUMBER: 62517.48

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Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 14
Build Geometry

6.3.2 Intersection Operational Analysis

Intersection operational analyses were performed for the opening and design years for the Build Alternative for the a.m. and p.m. design hours. The results of the intersection analysis are summarized in **Table 15** and the Synchro outputs are provided in **Appendix O**.

With the exception of the minor street approach at the intersection of SR 514 @ Medplex Parkway and SR 514 @ Marie Street that is projected to operate below the adopted LOS during the design year 2045, all other study intersections are projected to operate at or above LOS "D" under the Build Alternative through the design year 2045.

It can be concluded that all of the study intersections are projected to operate with reduced delay and better LOS under the Build alternative compared to the No Build alternative.

Table 15: Future Intersection LOS Summary - Build Alternative

Study Intersection	Traffic Control	Adopted LOS	AM Design Hour (Delay/LOS)		PM Design Hour (Delay/LOS)	
			2025	2045	2025	2045
Medplex Parkway	Stop	D	10.7/B	12.8/B	12.7/B	21.3/C
			26.0/D	36.2/E	27.7/D	59.1/F
Weber Road	Signal	D	11.1/B	16.1/B	8.0/A	11.5/B
Corey Road	Signal	D	17.1/B	20.5/C	16.7/B	19.5/B
Marie Street	Stop	D	10.4/B	12.3/B	10.3/B	12.1/B
			34.5/D	91.7/F	38.4/E	203.4/F
US 1	Signal	D	37.7/D	43.4/D	28.6/C	37.6/D

Notes:

1. Synchro based outputs are presented in this table for both the signalized and unsignalized intersections

2. Overall intersection delay and LOS results are reported for signalized intersections

3. In case of unsignalized intersections, worst case results for both major street delay/LOS (in top row) and minor street delay/LOS (in bottom row) are reported

4. Result shown in red color exceeds the adopted LOS standard

6.3.3 Arterial Level of Service Analysis

The roadway segments level of service analysis was performed for the Build Alternative using the Synchro 8. The roadway segment levels of service analyses were performed for the opening and design years for the Build Alternative. The results of the roadway link level of service are summarized in **Table 16**. As illustrated in **Table 16**, all the roadway segments between Weber Road and US 1 along SR 514 are projected to operate above LOS D under the Build Alternative in design year 2045. Note that even though the segment between Corey Road and US 1 is same as no-build conditions (two lane section), the provision of additional left turn lanes at the intersection of SR 514 @ US 1 made a better signal optimization possible for this intersection, resulting a better level of service compared to the no-build conditions.

Table 16: Future Arterial LOS Analysis Summary - Build Alternative

Roadway Segment	AM Design Hour (MPH/LOS)				PM Design Hour (MPH/LOS)			
	Year 2025		Year 2045		Year 2025		Year 2045	
	EB	WB	EB	WB	EB	WB	EB	WB
SR 514 Corridor								
Weber Road to Corey Road	42.3/A	49.7/A	40.5/A	48.6/A	44.3/A	49.3/A	42.6/A	46.7/A
Corey Road to US1	34.6/B	36.2/A	24.9/C	35.7/A	34.8/B	35.4/A	25.8/C	35.0/B
Weber Road to US1	**36.9/A**	**40.3/A**	**30.5/B**	**39.7/A**	**37.9/A**	**39.6/A**	**32.0/B**	**38.6/A**

6.4 Conclusion

Based on the evaluation of the intersection and roadway operating conditions for the year 2045 under No Build and Build traffic conditions, this study identified the Build Alternative to adequately accommodate the forecasted volumes through the design year 2045 compared to the No Build Alternative.

7 Recommendations

Based on the evaluation of operating conditions for the design year 2045 Build traffic conditions, this study recommends the roadway and intersection capacity improvements as shown in **Table 17** and in **Figure 14** to handle the projected traffic volumes within the study corridor.

Table 17: Recommended Build Alternative Capacity Improvements

Roadway/Intersection	Improvement	Proposed Begin Schedule
SR 514 from Medplex Parkway to Corey Road	Additional EB and WB through lanes (4-lane section)	Year 2025
SR 514 from Corey Road to US 1	A two-lane section is anticipated to be adequate for the Build conditions through the design year 2045	Year 2025
SR 514 @ Weber Road	Proposed Signal; Exclusive EB right turn lane and WB left turn lane; Exclusive NB left turn lane	Year 2025
SR 514 @ Corey Road	Exclusive EB and WB left turn lanes; Exclusive NB left turn lane	Year 2025
	Proposed Signal	Year 2025
SR 514 @ US 1	Additional (second) EB and NB left turn lanes; Eliminate free flow NB outside through movement	Year 2045

In addition to the above improvements, this study used the red time formula (source: ITE Traffic Engineering Manual, 5th Edition), to develop the queue length requirements at the signalized intersections along the study corridor. **Table 18** shows the recommended queue lengths for the design year 2045 design hour conditions. Queue length calculations are shown in **Appendix P**.

It should be noted that the specific lengths do not include the taper or deceleration distance (refer to FDOT index 301 to determine the appropriate specific taper and deceleration length). These queue lengths are recommended at locations where these lengths can be achieved. Actual design and implementation of these queue length requirements will be a function of design and the physical practicality of their construction.

Table 18: Recommended Queue Lengths of Turn Lanes - Year 2045 Build Alternative

SR 514 @	Turn Lane Queue Length (feet)							
	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Weber Road	-	125	100	-	200	-	-	-
Corey Road	100	-	100	-	100	-	-	100
US 1	375	-	-	-	200	-	-	225

Note: '-' Not Applicable

8 Appendices

Appendix A – Space Coast Transportation Planning Organization's Transportation Improvement Plan and Year 2035 Long Range Transit Needs Plan

Appendix B – RCI Data for SR 514 Corridor

Appendix C –Traffic Counts

Appendix D – FDOT Seasonal & Axle Adjustment Factors

Appendix E – Signal Timings & SYNCHRO Intersection Analysis Outputs for Year 2015

Appendix F – FDOT Generalized Table

Appendix G – Trends Analysis Sheets

Appendix H – BEBR Population Projections for Brevard County

Appendix I – Year 2035 Model Plots for No-Build and Build Alternatives

Appendix J – Year 2038 AADTs from previous SR 514 Design Traffic Technical Memorandum

Appendix K - TURNS5 Sheets

Appendix L - Signal Warrant Analysis Sheets

Appendix M - Synchro Output Sheets - No Build Alternative

Appendix N – Excerpt from the SR 514 Access Management Plan

Appendix O - Synchro Output Sheets - Build Alternative

Appendix P - Queue Length Calculations - Design Year 2045 Build Conditions

Appendix A

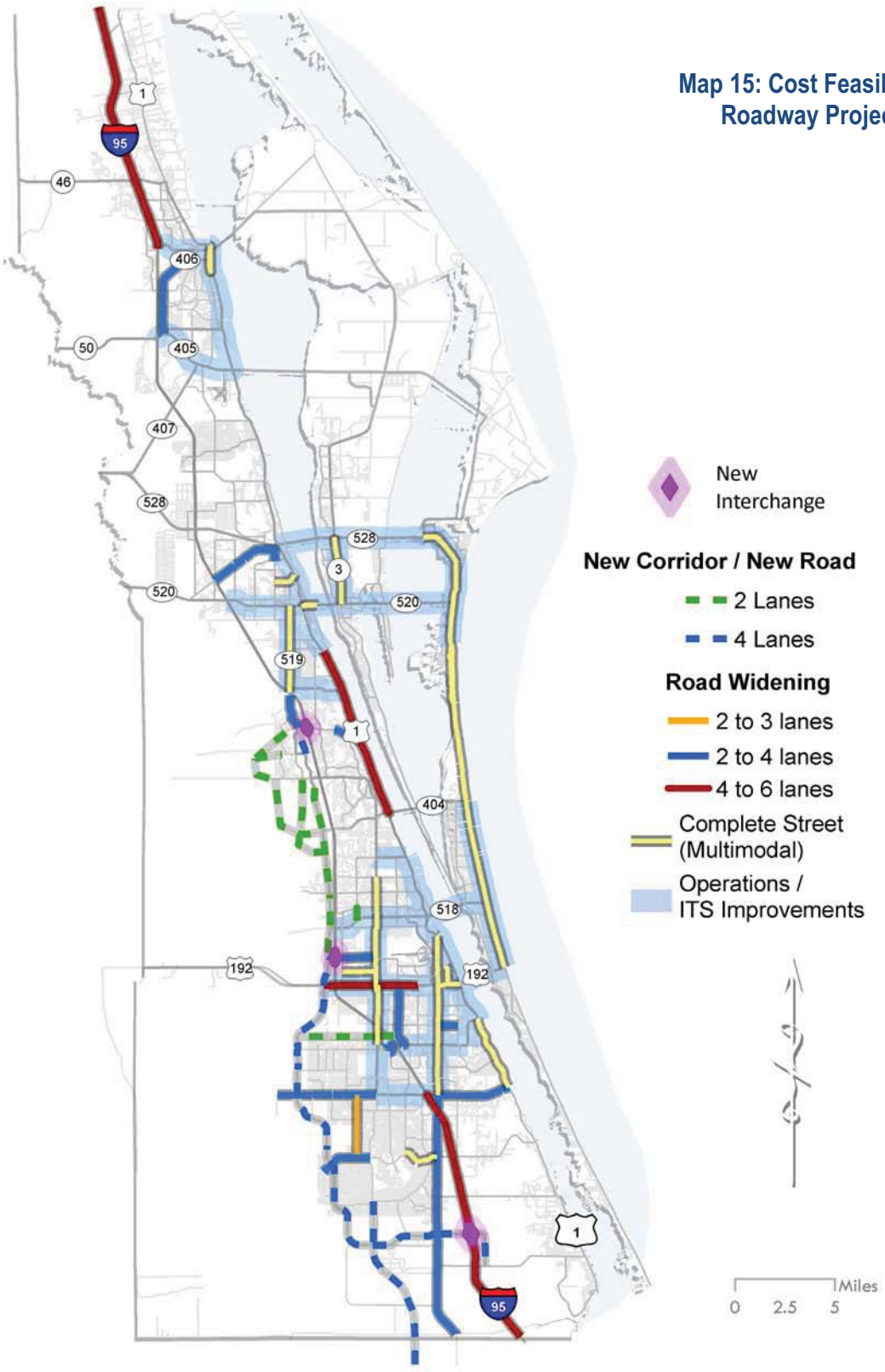
Space Coast Transportation Planning Organization's Transportation Improvement Plan and Year 2035 Long Range Transit Needs Plan

Space Coast Transportation Planning Organization
Transportation Improvement Program (TIP)
FY 2015 - FY 2019
Adopted July 10, 2014; Amended 9/11/14; 12/11/14

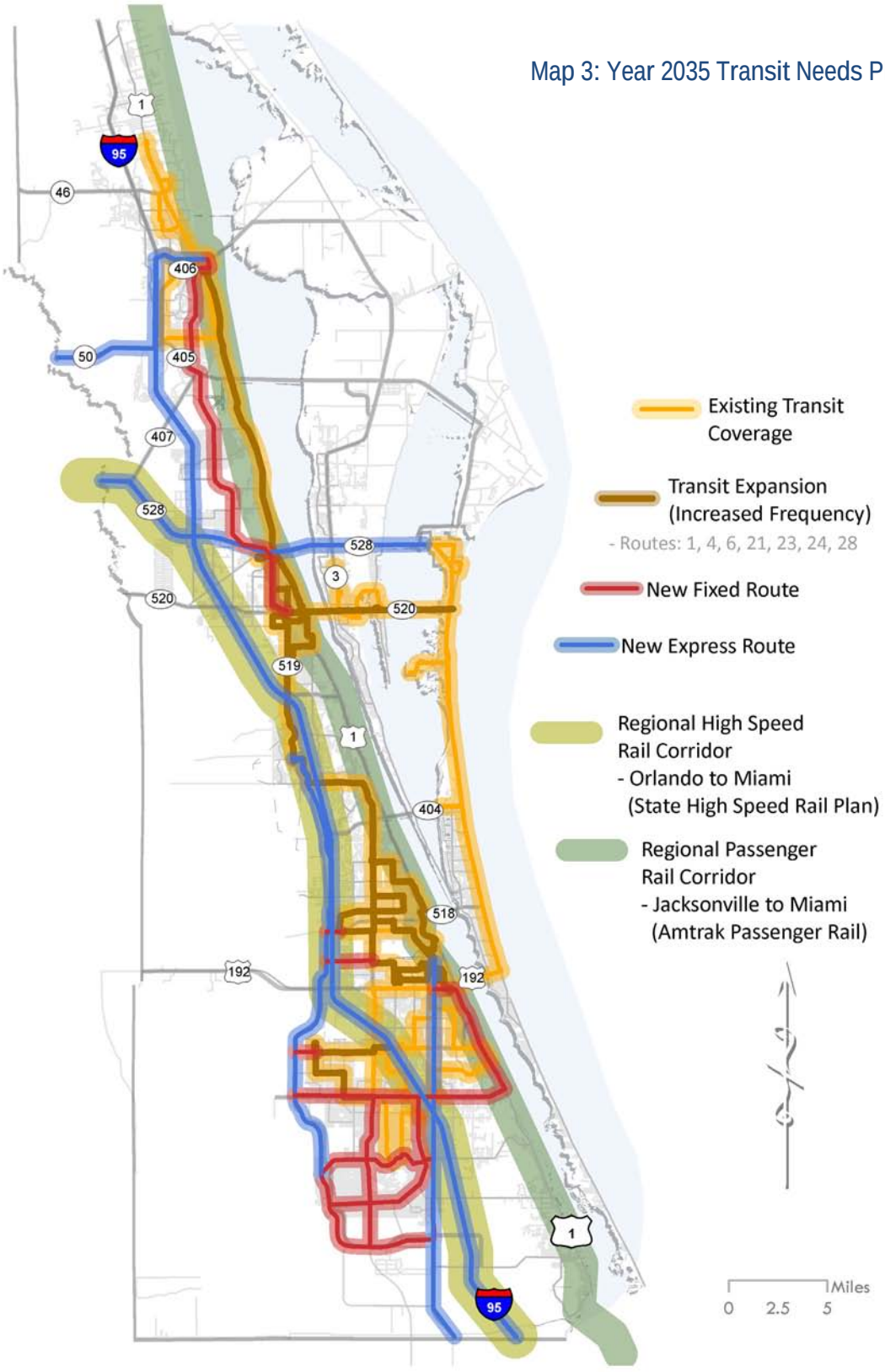
SPACE COAST TPO

Phase	Fund Source	2015	2016	2017	2018	2019	Total
Proj# 4282381 I-95 INTERCHANGE AT VIERA BLVD					**Length: 0.535 mi MI**	***SIS***	
Type of Work: INTERCHANGE (NEW)					**Lead Agency: Florida Department of Transportation**		
					LRTP#: PAGE 14		
Description: NEW I-95 INTERCHANGE; RIGHT OF WAY NEEDED TO CONSTRUCT INTERCHANGE WILL BE DONATED BY THE VIERA COMPANY. GOES WITH PROJECT L-VIERA-01							
PD&E	DS	2,301	0	0	0	0	**2,301**
PD&E	DIH	8,368	0	0	0	0	**8,368**
PE	DDR	300,000	0	0	0	0	**300,000**
PD&E	LFP	17,130	0	0	0	0	**17,130**
PE	PVT	870,000	0	0	0	0	**870,000**
PE	DIH	0	10,000	0	0	0	**10,000**
PE	DS	0	1,130,000	0	0	0	**1,130,000**
ROW	PVT	0	12,600,000	0	0	0	**12,600,000**
Total		**1,197,799**	**13,740,000**	**0**	**0**	**0**	**14,937,799**
	Prior Years Cost		*Future Years Cost*			*Total Project Cost*	*14,937,799*
Proj# 4301361 SR 514 (MALABAR RD) FROM BABCOCK STREET TO US 1					**Length: 3.698 mi MI**	***Non-SIS***	***RSP***
Type of Work: PD&E/EMO STUDY					**Lead Agency: Florida Department of Transportation**		
					LRTP#: Page 59, Table 15		
PD&E	DIH	1,159	0	0	0	0	**1,159**
PE	DIH	0	0	0	0	5,000	**5,000**
PE	DDR	0	0	0	0	2,929,185	**2,929,185**
Total		**1,159**	**0**	**0**	**0**	**2,934,185**	**2,935,344**
	Prior Years Cost	*1,058,661*	*Future Years Cost*			*Total Project Cost*	*3,994,005*
Proj# 4319801 BEACHLINE EAST ASSET TRANSFER					**Length: 8.421 MI MI**	***SIS***	
Type of Work: FUNDING ACTION					**Lead Agency: Florida Department of Transportation**		
PE	PKYI	60,000,000	0	0	0	0	**60,000,000**
Total		**60,000,000**	**0**	**0**	**0**	**0**	**60,000,000**
	Prior Years Cost		*Future Years Cost*			*Total Project Cost*	*60,000,000*

Map 15: Cost Feasible Roadway Projects



Map 3: Year 2035 Transit Needs Plan



Appendix B

RCI Data for SR 514 Corridor

Feature 112 - FEDERAL SYSTEM				LENGTH/NON-INTERLOCKING		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	6.698	FEDERAL HIGHWAY SYSTEM CODE	6 - STP	CD	C	RCICNVRT 12/18/1995
2.457	6.698	OLD FEDERAL HIGHWAY SYSTEM	2 - FA PRIMARY	CD	C	RCICNVRT 04/01/1996
Feature 114 - LOCAL SYSTEM				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	6.698	LOCAL NAME OF FACILITY	MALABAR RD	ID	C	MT510RM 06/14/2010
Feature 120 - TYPEROAD				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.218	ROUTE SIGNING	9 - NONE OF THE ABOVE	CD	C	MT590RC 05/05/2010
2.457	3.218	TYPE OF ROAD	2 - DIVIDED	CD	C	RCICNVRT 10/28/1999
3.218	3.946	ROUTE SIGNING	9 - NONE OF THE ABOVE	CD	C	MT590RC 05/05/2010
3.218	3.946	TYPE OF ROAD	2 - DIVIDED	CD	C	MT590RC 11/16/2005
3.946	6.698	ROUTE SIGNING	9 - NONE OF THE ABOVE	CD	C	MT590RC 05/05/2010
3.946	6.698	TYPE OF ROAD	0 - NOT DIVIDED	CD	C	MT590RC 11/16/2005
Feature 121 - FUNCTIONAL CLASSIFICATION				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	6.698	FUNCTIONAL CLASSIFICATION	16 - URBAN MINOR ART	CD	C	PL934TH 12/02/2004
Feature 212 - THRU LANES				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.06	NUMBER OF ROADWAY LANES	3	EA	L	RCICNVRT 10/28/1999
		PAVEMENT SURFACE WIDTH	36	FT	L	RCICNVRT 10/28/1999
2.457	3.06	NUMBER OF ROADWAY LANES	3	EA	R	RCICNVRT 10/28/1999
		PAVEMENT SURFACE WIDTH	36	FT	R	RCICNVRT 10/28/1999
3.06	3.218	NUMBER OF ROADWAY LANES	2	EA	L	RCICNVRT 10/28/1999
		PAVEMENT SURFACE WIDTH	26	FT	L	RCICNVRT 10/28/1999
3.06	3.218	NUMBER OF ROADWAY LANES	2	EA	R	RCICNVRT 10/28/1999
		PAVEMENT SURFACE WIDTH	26	FT	R	RCICNVRT 10/28/1999
3.218	3.946	NUMBER OF ROADWAY LANES	1	EA	L	RCICNVRT 09/22/1992
		PAVEMENT SURFACE WIDTH	12	FT	L	RCICNVRT 09/22/1992
3.218	3.946	NUMBER OF ROADWAY LANES	1	EA	R	RCICNVRT 09/22/1992
		PAVEMENT SURFACE WIDTH	12	FT	R	RCICNVRT 09/22/1992
3.946	6.698	NUMBER OF ROADWAY LANES	2	EA	C	RCICNVRT 09/22/1992
		PAVEMENT SURFACE WIDTH	24	FT	C	RCICNVRT 09/22/1992
Feature 215 - MEDIAN				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.06	HIGHWAY MEDIAN WIDTH	22	FT	C	RCICNVRT 10/28/1999
2.457	3.218	HIGHWAY MEDIAN TYPE	17 - CURB W/LAWN/TURF	CD	C	RCICNVRT 10/28/1999
3.06	3.218	HIGHWAY MEDIAN WIDTH	20	FT	C	RCICNVRT 10/28/1999
3.218	3.946	HIGHWAY MEDIAN WIDTH	12	FT	C	MT590RC 11/16/2005
		HIGHWAY MEDIAN TYPE	01 - PAINTED/TWO-WAY LEFT TURN	CD	C	MT590RC 11/16/2005
Feature 216 - BIKE LANES/PED SIDEWALK				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
3	3.224	SIDEWALK BARRIER CODE	0 - NO BARRIER	CD	L	MT590RC 12/07/2010
		SIDEWALK WIDTH AND SEP.	5	FT	L	MT510MD 12/14/2010
3	3.224	SIDEWALK BARRIER CODE	0 - NO BARRIER	CD	R	MT590RC 12/07/2010
		SIDEWALK WIDTH AND SEP.	5	FT	R	MT510MD 12/14/2010
3.217	4.241	BICYCLE LANE	0 - UNDESIGNATED	CD	L	MT590RC 11/04/2010
3.217	4.241	BICYCLE LANE	0 - UNDESIGNATED	CD	R	MT590RC 11/04/2010
Feature 230 - SURFACE DESCRIPTION				**LENGTH/NON-INTERLOCKING**		
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.218	PAVEMENT CONDITION	3.5	EA	L	MT590RC 10/04/2005
2.457	3.218	PAVEMENT INDEX	1 - HIGH ASPHALT	CD	L	MT590RC 10/04/2005
2.457	3.218	PAVEMENT SURFACE TYPE	28 - SHEET ASPHALT,ASPH.CONC.,BIT.	CD	L	RCICNVRT 10/28/1999
2.457	3.218	PAVEMENT CONDITION	3.5	EA	R	MT590RC 10/04/2005
2.457	3.218	PAVEMENT INDEX	1 - HIGH ASPHALT	CD	R	MT590RC 10/04/2005
2.457	3.218	PAVEMENT SURFACE TYPE	28 - SHEET ASPHALT,ASPH.CONC.,BIT.	CD	R	RCICNVRT 10/28/1999
3.218	3.565	PAVEMENT CONDITION	3.5	EA	C	MT590RC 10/04/2005
3.218	3.565	PAVEMENT INDEX	1 - HIGH ASPHALT	CD	C	MT590RC 10/04/2005
3.218	3.565	PAVEMENT SURFACE TYPE	28 - SHEET ASPHALT,ASPH.CONC.,BIT.	CD	C	RCICNVRT 06/05/1986
3.565	3.803	PAVEMENT CONDITION	3.5	EA	L	MT590RC 10/04/2005
3.565	3.803	PAVEMENT INDEX	1 - HIGH ASPHALT	CD	L	MT590RC 10/04/2005
3.565	3.803	PAVEMENT SURFACE TYPE	28 - SHEET ASPHALT,ASPH.CONC.,BIT.	CD	L	RCICNVRT 09/22/1992
3.565	3.803	PAVEMENT CONDITION	3.5	EA	R	MT590RC 10/04/2005
3.565	3.803	PAVEMENT INDEX	1 - HIGH ASPHALT	CD	R	MT590RC 10/04/2005
3.565	3.803	PAVEMENT SURFACE TYPE	28 - SHEET ASPHALT,ASPH.CONC.,BIT.	CD	R	RCICNVRT 09/22/1992
3.803	6.698	PAVEMENT CONDITION	3.5	EA	C	MT590RC 10/04/2005
3.803	6.698	PAVEMENT INDEX	1 - HIGH ASPHALT	CD	C	MT590RC 10/04/2005
3.803	6.698	PAVEMENT SURFACE TYPE	28 - SHEET ASPHALT,ASPH.CONC.,BIT.	CD	C	RCICNVRT 09/22/1992

Feature 232 - SURFACE LAYERS						LENGTH/NON-INTERLOCKING
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.052	FRICTION COURSE	3 - TYPE-3	CD	L	RCICNVRT 10/28/1999
2.457	3.052	FRICTION COURSE	3 - TYPE-3	CD	R	RCICNVRT 10/28/1999
2.973	3.052	PAVEMENT SURFACE LAYER 3	S - TYPE S ASPHALTIC CONCRETE	CD	L	RCICNVRT 10/29/1999
2.973	3.052	PAVEMENT SURFACE THICKNESS 3	1	IN	L	RCICNVRT 10/28/1999
2.973	3.052	PAVEMENT SURFACE LAYER 3	S - TYPE S ASPHALTIC CONCRETE	CD	R	RCICNVRT 10/29/1999
2.973	3.052	PAVEMENT SURFACE THICKNESS 3	1	IN	R	RCICNVRT 10/28/1999
2.973	3.143	PAVEMENT SURFACE THICKNESS 1	0.75	IN	L	RCICNVRT 10/09/1991
2.973	3.143	PAVEMENT SURFACE THICKNESS 2	2	IN	L	RCICNVRT 10/09/1991
2.973	3.143	PAVEMENT SURFACE THICKNESS 1	0.75	IN	R	RCICNVRT 10/09/1991
2.973	3.143	PAVEMENT SURFACE THICKNESS 2	2	IN	R	RCICNVRT 10/09/1991
3.052	3.218	FRICTION COURSE	2 - TYPE-2	CD	L	RCICNVRT 10/28/1999
3.052	3.218	FRICTION COURSE	2 - TYPE-2	CD	R	RCICNVRT 10/28/1999
3.218	3.565	FRICTION COURSE	3 - TYPE-3	CD	C	RCICNVRT 08/17/1998
3.565	3.803	FRICTION COURSE	3 - TYPE-3	CD	L	RCICNVRT 08/17/1998
3.565	3.803	FRICTION COURSE	3 - TYPE-3	CD	R	RCICNVRT 08/17/1998
3.803	6.698	FRICTION COURSE	3 - TYPE-3	CD	C	RCICNVRT 08/17/1998
Feature 311 - SPEED ZONE						**LENGTH/NON-INTERLOCKING**
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.36	DATE SPEED ZONE APPROVED	12/16/1967	DA	C	RCICNVRT 10/23/1980
		MAXIMUM SPEED LIMIT	45	MH	C	RCICNVRT 10/23/1980
3.36	3.85	DATE SPEED ZONE APPROVED	11/06/2003	DA	C	TO562JG 02/28/2006
		MAXIMUM SPEED LIMIT	45	MH	C	TO562JG 02/28/2006
3.85	5.974	DATE SPEED ZONE APPROVED	02/07/2003	DA	C	TO562JG 02/28/2006
		MAXIMUM SPEED LIMIT	55	MH	C	TO562JG 02/28/2006
5.974	6.332	DATE SPEED ZONE APPROVED	12/16/1980	DA	C	RCICNVRT 10/11/1982
		MAXIMUM SPEED LIMIT	45	MH	C	RCICNVRT 06/19/1990
6.332	6.698	DATE SPEED ZONE APPROVED	12/16/1980	DA	C	RCICNVRT 06/19/1990
		MAXIMUM SPEED LIMIT	30	MH	C	RCICNVRT 06/19/1990
Feature 322 - SIGNALS						**LENGTH/NON-INTERLOCKING**
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
3.06		SIDE STREET NAME	BABCOCK ST	ID	C	TO562JG 08/26/2011
		NON-COUNTED SIGNAL	02 - INTERSECTION CONTROL SIGNAL	CD	C	RCICNVRT 11/25/1985
		TYPE OF SIGNAL STRUCTURE	03 - CONCRETE STRAIN POLE	CD	C	TO562JG 08/26/2011
6.698		SIDE STREET NAME	US-1	ID	C	TO562JG 08/26/2011
		NON-COUNTED SIGNAL	02 - INTERSECTION CONTROL SIGNAL	CD	C	RCICNVRT 11/25/1985
		TYPE OF SIGNAL STRUCTURE	03 - CONCRETE STRAIN POLE	CD	C	TO562JG 08/26/2011
Feature 331 - TRAFFIC FLOW BREAKS						**LENGTH/NON-INTERLOCKING**
Beg. MP	**End. MP**	**Characteristic**	**Value**	**Unit**	**Side**	**Char. Updated**
2.457	3.06	AADT DATE	12/31/2011	DA	C	KNMEIGP 03/26/2012
		AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	CD	C	KNMEIGP 03/26/2012
		RDWY SECTION AVG "D" FACTOR	54.3	EA	C	KNMEIGP 03/26/2012
		AVG.30TH HI.HR.TRAFFIC / ADT	9	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE T FACTOR	4.9	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE ADT	38500	EA	C	KNMEIGP 03/26/2012
3.06	5.384	AADT DATE	12/31/2011	DA	C	KNMEIGP 03/26/2012
		AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	CD	C	KNMEIGP 03/26/2012
		RDWY SECTION AVG "D" FACTOR	54.3	EA	C	KNMEIGP 03/26/2012
		AVG.30TH HI.HR.TRAFFIC / ADT	9	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE T FACTOR	5.4	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE ADT	17200	EA	C	KNMEIGP 03/26/2012
5.384	6.202	AADT DATE	12/31/2011	DA	C	KNMEIGP 03/26/2012
		AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	CD	C	KNMEIGP 03/26/2012
		RDWY SECTION AVG "D" FACTOR	54.3	EA	C	KNMEIGP 03/26/2012
		AVG.30TH HI.HR.TRAFFIC / ADT	9	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE T FACTOR	5.4	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE ADT	11400	EA	C	KNMEIGP 03/26/2012
6.202	6.698	AADT DATE	12/31/2011	DA	C	KNMEIGP 03/26/2012
		AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	CD	C	KNMEIGP 03/26/2012
		RDWY SECTION AVG "D" FACTOR	54.3	EA	C	KNMEIGP 03/26/2012
		AVG.30TH HI.HR.TRAFFIC / ADT	9	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE T FACTOR	5.8	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE ADT	11800	EA	C	KNMEIGP 03/26/2012

Appendix C

Traffic Counts

TRAFFIC COUNT DATA

FINANCE NO: 413761-1
LOCATION CODE: 1
COUNT LOCATION: #1 - On SR-514, 1.097 Mil. W. of SR-5 (UVL) (Site: 700127 MP 5.6420)

TYPE OF COUNT:

48 Hour Classification Count

TIME OF COUNT:

Start Date:	9/23/2014	Start Time:	Midnight
End Date:	9/25/2014	End Time:	Midnight

VOLUMES:

		Peak Hour Start Time:	7:30 AM
Average Daily:	11,832	Average Peak Hour:	1,168
Daily Truck Avg:	616	Max Hour Truck Avg:	71
		Peak Hour Truck Avg:	63

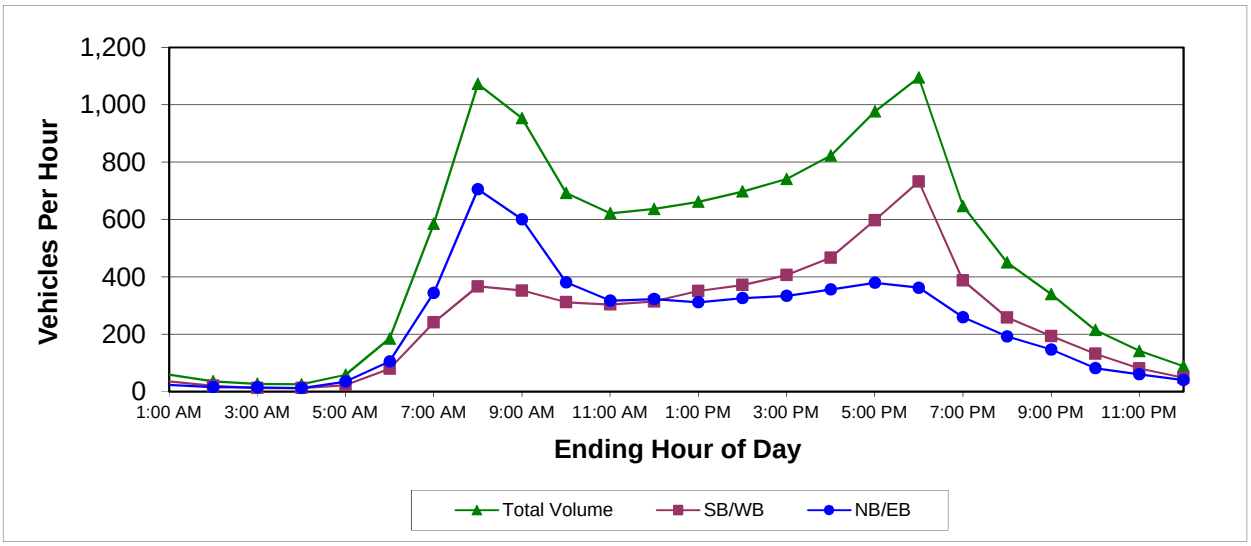
TRAVEL CHARACTERISTICS:

K MEASURED		D MEASURED	
K=	9.9%	D=	67.5%
T Max Hour	6.0%	T daily	5.2%
T med (max)	3.9%	T med Daily	3.5%
T heavy (max)	2.1%	T heavy Daily	1.7%
T Peak Hour	5.4%		
T med Peak Hour	3.6%	Axle Factor	0.99
T heavy Peak Hour	1.8%		

HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

FINANCE NO: 413761-1
LOCATION CODE: 1
COUNT LOCATION: #1 - On SR-514, 1.097 Mil. W. of SR-5 (UVL) (Site: 700127 MP 5.6420)

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	24	36	59	0.41%	0.58%	0.50%
2:00 AM	16	21	37	0.28%	0.34%	0.31%
3:00 AM	15	13	28	0.26%	0.20%	0.23%
4:00 AM	13	13	26	0.22%	0.21%	0.22%
5:00 AM	35	23	58	0.61%	0.38%	0.49%
6:00 AM	106	80	185	1.84%	1.30%	1.56%
7:00 AM	345	241	586	6.01%	3.95%	4.95%
8:00 AM	706	367	1,073	12.32%	6.01%	9.07%
9:00 AM	601	353	953	10.48%	5.78%	8.05%
10:00 AM	381	312	693	6.64%	5.11%	5.85%
11:00 AM	318	304	622	5.54%	4.98%	5.25%
12:00 PM	323	315	637	5.63%	5.15%	5.38%
1:00 PM	312	351	663	5.44%	5.75%	5.60%
2:00 PM	326	372	698	5.69%	6.10%	5.90%
3:00 PM	335	407	741	5.84%	6.66%	6.26%
4:00 PM	356	467	823	6.21%	7.64%	6.95%
5:00 PM	380	598	977	6.62%	9.79%	8.26%
6:00 PM	363	733	1,095	6.33%	12.00%	9.25%
7:00 PM	259	388	647	4.52%	6.36%	5.47%
8:00 PM	192	259	451	3.35%	4.24%	3.81%
9:00 PM	147	194	340	2.56%	3.17%	2.87%
10:00 PM	82	133	215	1.43%	2.17%	1.81%
11:00 PM	61	81	142	1.06%	1.33%	1.20%
12:00 AM	41	48	89	0.71%	0.79%	0.75%
TOTALS	5,730	6,103	11,832	100.0%	100.0%	100.0%



ANNUAL VEHICLE CLASSIFICATION REPORT

FINANCE NO: 413761-1

LOCATION CODE: 1

COUNT LOCATION: #1 - On SR-514, 1.097 Mil. W. of SR-5 (UVL) (Site: 700127 MP 5.6420)

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	64	0.54%
Class 2	Cars	8,922	75.39%
Class 3	Pick-Ups & Vans	2,230	18.84%
Class 4	Buses	51	0.43%
Class 5	2 Axle, Single Unit Trucks	367	3.10%
Class 6	3 Axle, Single Unit Trucks	34	0.29%
Class 7	4 Axle, Single Unit Trucks	2	0.02%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	84	0.71%
Class 9	3 Axle Tractor with 2 Axle Trailer	80	0.68%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	0	0.00%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	0	0.00%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
TOTALS		**11,834**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	SR 514
LOCATION CODE	1
COUNT LOCATION	Just West of Medplex Pkwy
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	3-Feb-15	**Start Time**	12:00 AM
End Date	4-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	19,895	**PEAK HOUR**	1,879
		PEAK END TIME	5:30 PM
		PEAK NB/EB MOVEMENT	768
		PEAK SB/WB MOVEMENT	1,111

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	9.44%	**D=**	59.1%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT SR 514
LOCATION CODE 1
COUNT LOCATION Just West of Medplex Pkwy
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	32	45	77	0.33%	0.44%	0.39%
02:00 AM	24	34	58	0.25%	0.34%	0.29%
03:00 AM	22	23	45	0.23%	0.23%	0.23%
04:00 AM	26	30	56	0.27%	0.30%	0.28%
05:00 AM	38	49	87	0.39%	0.48%	0.44%
06:00 AM	142	123	265	1.45%	1.22%	1.33%
07:00 AM	419	329	748	4.29%	3.25%	3.76%
08:00 AM	665	502	1,167	6.80%	4.96%	5.87%
09:00 AM	677	525	1,202	6.92%	5.19%	6.04%
10:00 AM	517	491	1,008	5.29%	4.85%	5.07%
11:00 AM	572	528	1,100	5.85%	5.22%	5.53%
12:00 PM	654	703	1,357	6.69%	6.95%	6.82%
01:00 PM	732	763	1,495	7.49%	7.54%	7.51%
02:00 PM	730	706	1,436	7.47%	6.98%	7.22%
03:00 PM	710	649	1,359	7.26%	6.41%	6.83%
04:00 PM	787	868	1,655	8.05%	8.58%	8.32%
05:00 PM	820	974	1,794	8.39%	9.63%	9.02%
06:00 PM	687	1,150	1,837	7.03%	11.37%	9.23%
07:00 PM	575	658	1,233	5.88%	6.50%	6.20%
08:00 PM	307	303	610	3.14%	2.99%	3.07%
09:00 PM	268	254	522	2.74%	2.51%	2.62%
10:00 PM	185	164	349	1.89%	1.62%	1.75%
11:00 PM	112	141	253	1.15%	1.39%	1.27%
12:00 AM	76	106	182	0.78%	1.05%	0.91%
TOTALS	**9,777**	**10,118**	**19,895**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	SR 514
LOCATION CODE	2
COUNT LOCATION	Just West of Weber Rd
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	3-Feb-15	**Start Time**	12:00 AM
End Date	4-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	17,795	**PEAK HOUR**	1,632
		PEAK END TIME	5:30 PM
		PEAK NB/EB MOVEMENT	684
		PEAK SB/WB MOVEMENT	948

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	9.17%	**D=**	58.1%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT SR 514
LOCATION CODE 2
COUNT LOCATION Just West of Weber Rd
GMB PROJECT NO.

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	24	31	55	0.28%	0.34%	0.31%
02:00 AM	16	22	38	0.18%	0.24%	0.21%
03:00 AM	11	15	26	0.13%	0.16%	0.15%
04:00 AM	23	23	46	0.27%	0.25%	0.26%
05:00 AM	32	46	78	0.37%	0.50%	0.44%
06:00 AM	111	117	228	1.28%	1.28%	1.28%
07:00 AM	364	353	717	4.20%	3.86%	4.03%
08:00 AM	742	638	1,380	8.57%	6.98%	7.75%
09:00 AM	640	589	1,229	7.39%	6.45%	6.91%
10:00 AM	491	550	1,041	5.67%	6.02%	5.85%
11:00 AM	496	487	983	5.73%	5.33%	5.52%
12:00 PM	532	544	1,076	6.14%	5.96%	6.05%
01:00 PM	560	598	1,158	6.47%	6.55%	6.51%
02:00 PM	566	617	1,183	6.54%	6.75%	6.65%
03:00 PM	609	576	1,185	7.03%	6.31%	6.66%
04:00 PM	675	700	1,375	7.79%	7.66%	7.73%
05:00 PM	711	802	1,513	8.21%	8.78%	8.50%
06:00 PM	618	1,010	1,628	7.14%	11.06%	9.15%
07:00 PM	503	581	1,084	5.81%	6.36%	6.09%
08:00 PM	348	294	642	4.02%	3.22%	3.61%
09:00 PM	261	216	477	3.01%	2.36%	2.68%
10:00 PM	162	140	302	1.87%	1.53%	1.70%
11:00 PM	95	112	207	1.10%	1.23%	1.16%
12:00 AM	71	73	144	0.82%	0.80%	0.81%
TOTALS	**8,661**	**9,134**	**17,795**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	SR 514
LOCATION CODE	3
COUNT LOCATION	Just East of Weber Rd
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	3-Feb-15	**Start Time**	12:00 AM
End Date	4-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	15,861	**PEAK HOUR**	1,484
		PEAK END TIME	6:00 PM
		PEAK NB/EB MOVEMENT	503
		PEAK SB/WB MOVEMENT	981

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	9.36%	**D=**	66.1%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT SR 514
LOCATION CODE 3
COUNT LOCATION Just East of Weber Rd
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	20	29	49	0.26%	0.35%	0.31%
02:00 AM	15	21	36	0.20%	0.26%	0.23%
03:00 AM	8	13	21	0.10%	0.16%	0.13%
04:00 AM	21	18	39	0.27%	0.22%	0.25%
05:00 AM	31	37	68	0.40%	0.45%	0.43%
06:00 AM	136	117	253	1.77%	1.43%	1.60%
07:00 AM	388	305	693	5.06%	3.72%	4.37%
08:00 AM	722	537	1,259	9.41%	6.56%	7.94%
09:00 AM	606	477	1,083	7.90%	5.82%	6.83%
10:00 AM	447	465	912	5.83%	5.68%	5.75%
11:00 AM	450	416	866	5.87%	5.08%	5.46%
12:00 PM	463	479	942	6.03%	5.85%	5.94%
01:00 PM	473	529	1,002	6.17%	6.46%	6.32%
02:00 PM	487	555	1,042	6.35%	6.78%	6.57%
03:00 PM	532	533	1,065	6.93%	6.51%	6.71%
04:00 PM	573	642	1,215	7.47%	7.84%	7.66%
05:00 PM	590	748	1,338	7.69%	9.13%	8.44%
06:00 PM	503	981	1,484	6.56%	11.98%	9.36%
07:00 PM	429	533	962	5.59%	6.51%	6.07%
08:00 PM	277	261	538	3.61%	3.19%	3.39%
09:00 PM	225	201	426	2.93%	2.45%	2.69%
10:00 PM	134	122	256	1.75%	1.49%	1.61%
11:00 PM	85	100	185	1.11%	1.22%	1.17%
12:00 AM	57	70	127	0.74%	0.85%	0.80%
TOTALS	**7,672**	**8,189**	**15,861**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	SR 514
LOCATION CODE	4
COUNT LOCATION	Just West of US 1
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	3-Feb-15	**Start Time**	12:00 AM
End Date	4-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	14,069	**PEAK HOUR**	1,356
		PEAK END TIME	5:30 PM
		PEAK NB/EB MOVEMENT	473
		PEAK SB/WB MOVEMENT	883

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	9.64%	**D=**	65.1%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT SR 514
LOCATION CODE 4
COUNT LOCATION Just West of US 1
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	16	47	63	0.23%	0.67%	0.45%
02:00 AM	12	29	41	0.17%	0.42%	0.29%
03:00 AM	8	15	23	0.11%	0.22%	0.16%
04:00 AM	20	13	33	0.28%	0.19%	0.23%
05:00 AM	37	25	62	0.52%	0.36%	0.44%
06:00 AM	120	64	184	1.69%	0.92%	1.31%
07:00 AM	400	235	635	5.64%	3.37%	4.51%
08:00 AM	721	440	1,161	10.16%	6.31%	8.25%
09:00 AM	678	434	1,112	9.56%	6.22%	7.90%
10:00 AM	409	394	803	5.77%	5.65%	5.71%
11:00 AM	382	414	796	5.38%	5.94%	5.66%
12:00 PM	403	444	847	5.68%	6.37%	6.02%
01:00 PM	461	469	930	6.50%	6.72%	6.61%
02:00 PM	468	518	986	6.60%	7.43%	7.01%
03:00 PM	457	497	954	6.44%	7.13%	6.78%
04:00 PM	516	654	1,170	7.27%	9.38%	8.32%
05:00 PM	519	769	1,288	7.32%	11.03%	9.15%
06:00 PM	467	846	1,313	6.58%	12.13%	9.33%
07:00 PM	371	320	691	5.23%	4.59%	4.91%
08:00 PM	223	120	343	3.14%	1.72%	2.44%
09:00 PM	173	98	271	2.44%	1.41%	1.93%
10:00 PM	109	56	165	1.54%	0.80%	1.17%
11:00 PM	74	46	120	1.04%	0.66%	0.85%
12:00 AM	50	28	78	0.70%	0.40%	0.55%
TOTALS	**7,094**	**6,975**	**14,069**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	Medplex Pkwy
LOCATION CODE	6
COUNT LOCATION	Just North of SR 514
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	3-Feb-15	**Start Time**	12:00 AM
End Date	4-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	2,679	**PEAK HOUR**	229
		PEAK END TIME	2:15 PM
		PEAK NB/EB MOVEMENT	114
		PEAK SB/WB MOVEMENT	115

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	8.55%	**D=**	50.2%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT Medplex Pkwy
LOCATION CODE 6
COUNT LOCATION Just North of SR 514
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	8	22	30	0.61%	1.60%	1.12%
02:00 AM	10	14	24	0.77%	1.02%	0.90%
03:00 AM	4	6	10	0.31%	0.44%	0.37%
04:00 AM	4	7	11	0.31%	0.51%	0.41%
05:00 AM	3	4	7	0.23%	0.29%	0.26%
06:00 AM	21	7	28	1.61%	0.51%	1.05%
07:00 AM	101	17	118	7.76%	1.23%	4.40%
08:00 AM	99	51	150	7.60%	3.70%	5.60%
09:00 AM	110	66	176	8.45%	4.79%	6.57%
10:00 AM	98	78	176	7.53%	5.66%	6.57%
11:00 AM	120	102	222	9.22%	7.41%	8.29%
12:00 PM	77	99	176	5.91%	7.19%	6.57%
01:00 PM	99	99	198	7.60%	7.19%	7.39%
02:00 PM	103	94	197	7.91%	6.83%	7.35%
03:00 PM	93	119	212	7.14%	8.64%	7.91%
04:00 PM	87	128	215	6.68%	9.30%	8.03%
05:00 PM	65	124	189	4.99%	9.01%	7.05%
06:00 PM	50	99	149	3.84%	7.19%	5.56%
07:00 PM	58	68	126	4.45%	4.94%	4.70%
08:00 PM	29	58	87	2.23%	4.21%	3.25%
09:00 PM	24	42	66	1.84%	3.05%	2.46%
10:00 PM	21	27	48	1.61%	1.96%	1.79%
11:00 PM	10	27	37	0.77%	1.96%	1.38%
12:00 AM	8	19	27	0.61%	1.38%	1.01%
TOTALS	**1,302**	**1,377**	**2,679**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	Marie St
LOCATION CODE	7
COUNT LOCATION	Just North of SR 514
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	12-Feb-15	**Start Time**	12:00 AM
End Date	13-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	231	**PEAK HOUR**	31
		PEAK END TIME	10:45 AM
		PEAK NB/EB MOVEMENT	13
		PEAK SB/WB MOVEMENT	18

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	13.42%	**D=**	58.1%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT Marie St
LOCATION CODE 7
COUNT LOCATION Just North of SR 514
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	2	0	2	1.55%	0.00%	0.87%
02:00 AM	3	0	3	2.33%	0.00%	1.30%
03:00 AM	0	0	0	0.00%	0.00%	0.00%
04:00 AM	0	0	0	0.00%	0.00%	0.00%
05:00 AM	0	0	0	0.00%	0.00%	0.00%
06:00 AM	1	0	1	0.78%	0.00%	0.43%
07:00 AM	1	0	1	0.78%	0.00%	0.43%
08:00 AM	7	3	10	5.43%	2.94%	4.33%
09:00 AM	5	8	13	3.88%	7.84%	5.63%
10:00 AM	8	9	17	6.20%	8.82%	7.36%
11:00 AM	13	17	30	10.08%	16.67%	12.99%
12:00 PM	8	6	14	6.20%	5.88%	6.06%
01:00 PM	11	11	22	8.53%	10.78%	9.52%
02:00 PM	12	8	20	9.30%	7.84%	8.66%
03:00 PM	17	9	26	13.18%	8.82%	11.26%
04:00 PM	11	9	20	8.53%	8.82%	8.66%
05:00 PM	9	15	24	6.98%	14.71%	10.39%
06:00 PM	9	6	15	6.98%	5.88%	6.49%
07:00 PM	5	0	5	3.88%	0.00%	2.16%
08:00 PM	4	0	4	3.10%	0.00%	1.73%
09:00 PM	1	0	1	0.78%	0.00%	0.43%
10:00 PM	1	0	1	0.78%	0.00%	0.43%
11:00 PM	0	0	0	0.00%	0.00%	0.00%
12:00 AM	1	1	2	0.78%	0.98%	0.87%
TOTALS	**129**	**102**	**231**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	Marie St
LOCATION CODE	8
COUNT LOCATION	Just South of SR 514
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	12-Feb-15	**Start Time**	12:00 AM
End Date	13-Feb-15	**End Time**	12:00 AM

VOLUMES:

ADT	608	**PEAK HOUR**	53
		PEAK END TIME	4:45 PM
		PEAK NB/EB MOVEMENT	20
		PEAK SB/WB MOVEMENT	33

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	8.72%	**D=**	62.3%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT Marie St
LOCATION CODE 8
COUNT LOCATION Just South of SR 514
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	0	2	2	0.00%	0.70%	0.33%
02:00 AM	0	0	0	0.00%	0.00%	0.00%
03:00 AM	1	1	2	0.31%	0.35%	0.33%
04:00 AM	1	1	2	0.31%	0.35%	0.33%
05:00 AM	7	1	8	2.18%	0.35%	1.32%
06:00 AM	6	0	6	1.87%	0.00%	0.99%
07:00 AM	16	5	21	4.98%	1.74%	3.45%
08:00 AM	36	9	45	11.21%	3.14%	7.40%
09:00 AM	30	13	43	9.35%	4.53%	7.07%
10:00 AM	18	21	39	5.61%	7.32%	6.41%
11:00 AM	17	15	32	5.30%	5.23%	5.26%
12:00 PM	26	19	45	8.10%	6.62%	7.40%
01:00 PM	29	20	49	9.03%	6.97%	8.06%
02:00 PM	19	20	39	5.92%	6.97%	6.41%
03:00 PM	18	17	35	5.61%	5.92%	5.76%
04:00 PM	25	15	40	7.79%	5.23%	6.58%
05:00 PM	16	36	52	4.98%	12.54%	8.55%
06:00 PM	18	24	42	5.61%	8.36%	6.91%
07:00 PM	15	22	37	4.67%	7.67%	6.09%
08:00 PM	8	20	28	2.49%	6.97%	4.61%
09:00 PM	2	7	9	0.62%	2.44%	1.48%
10:00 PM	8	10	18	2.49%	3.48%	2.96%
11:00 PM	2	8	10	0.62%	2.79%	1.64%
12:00 AM	3	1	4	0.93%	0.35%	0.66%
TOTALS	**321**	**287**	**608**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	Weber Road
LOCATION CODE	10
COUNT LOCATION	South of SR 514
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	23-Sep-14	**Start Time**	12:00 AM
End Date	24-Sep-14	**End Time**	12:00 AM

VOLUMES:

ADT	2,438	**PEAK HOUR**	217
		PEAK END TIME	8:15 AM
		PEAK NB/EB MOVEMENT	133
		PEAK SB/WB MOVEMENT	84

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	8.90%	**D=**	61.3%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT Weber Road
LOCATION CODE 10
COUNT LOCATION South of SR 514
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	5	8	13	0.43%	0.63%	0.53%
02:00 AM	5	4	9	0.43%	0.31%	0.37%
03:00 AM	0	1	1	0.00%	0.08%	0.04%
04:00 AM	3	2	5	0.26%	0.16%	0.21%
05:00 AM	24	13	37	2.07%	1.02%	1.52%
06:00 AM	38	6	44	3.28%	0.47%	1.80%
07:00 AM	76	19	95	6.56%	1.49%	3.90%
08:00 AM	144	71	215	12.42%	5.55%	8.82%
09:00 AM	101	65	166	8.71%	5.08%	6.81%
10:00 AM	67	49	116	5.78%	3.83%	4.76%
11:00 AM	84	55	139	7.25%	4.30%	5.70%
12:00 PM	59	57	116	5.09%	4.46%	4.76%
01:00 PM	65	65	130	5.61%	5.08%	5.33%
02:00 PM	47	78	125	4.06%	6.10%	5.13%
03:00 PM	50	63	113	4.31%	4.93%	4.63%
04:00 PM	50	107	157	4.31%	8.37%	6.44%
05:00 PM	62	127	189	5.35%	9.93%	7.75%
06:00 PM	63	146	209	5.44%	11.42%	8.57%
07:00 PM	66	107	173	5.69%	8.37%	7.10%
08:00 PM	66	73	139	5.69%	5.71%	5.70%
09:00 PM	45	80	125	3.88%	6.25%	5.13%
10:00 PM	16	40	56	1.38%	3.13%	2.30%
11:00 PM	7	30	37	0.60%	2.35%	1.52%
12:00 AM	16	13	29	1.38%	1.02%	1.19%
TOTALS	**1,159**	**1,279**	**2,438**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	Corey Road
LOCATION CODE	11
COUNT LOCATION	South of SR 514
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	23-Sep-14	**Start Time**	12:00 AM
End Date	24-Sep-14	**End Time**	12:00 AM

VOLUMES:

ADT	2,105	**PEAK HOUR**	195
		PEAK END TIME	8:15 AM
		PEAK NB/EB MOVEMENT	146
		PEAK SB/WB MOVEMENT	49

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	9.26%	**D=**	74.9%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT Corey Road
LOCATION CODE 11
COUNT LOCATION South of SR 514
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	3	8	11	0.29%	0.75%	0.52%
02:00 AM	1	6	7	0.10%	0.56%	0.33%
03:00 AM	1	1	2	0.10%	0.09%	0.10%
04:00 AM	0	0	0	0.00%	0.00%	0.00%
05:00 AM	4	2	6	0.38%	0.19%	0.29%
06:00 AM	25	3	28	2.40%	0.28%	1.33%
07:00 AM	63	19	82	6.05%	1.79%	3.90%
08:00 AM	144	43	187	13.82%	4.05%	8.88%
09:00 AM	111	39	150	10.65%	3.67%	7.13%
10:00 AM	86	43	129	8.25%	4.05%	6.13%
11:00 AM	67	49	116	6.43%	4.61%	5.51%
12:00 PM	55	60	115	5.28%	5.64%	5.46%
01:00 PM	68	85	153	6.53%	8.00%	7.27%
02:00 PM	61	79	140	5.85%	7.43%	6.65%
03:00 PM	63	51	114	6.05%	4.80%	5.42%
04:00 PM	55	75	130	5.28%	7.06%	6.18%
05:00 PM	47	111	158	4.51%	10.44%	7.51%
06:00 PM	55	131	186	5.28%	12.32%	8.84%
07:00 PM	48	70	118	4.61%	6.59%	5.61%
08:00 PM	29	71	100	2.78%	6.68%	4.75%
09:00 PM	24	59	83	2.30%	5.55%	3.94%
10:00 PM	13	34	47	1.25%	3.20%	2.23%
11:00 PM	12	11	23	1.15%	1.03%	1.09%
12:00 AM	7	13	20	0.67%	1.22%	0.95%
TOTALS	**1,042**	**1,063**	**2,105**	**100.00%**	**100.00%**	**100.00%**

TRAFFIC COUNT DATA

PROJECT	Corey Road
LOCATION CODE	12
COUNT LOCATION	North of SR 514
GMB PROJECT NO.	

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

Start Date	23-Sep-14	**Start Time**	12:00 AM
End Date	24-Sep-14	**End Time**	12:00 AM

VOLUMES:

ADT	634	**PEAK HOUR**	61
		PEAK END TIME	7:15 PM
		PEAK NB/EB MOVEMENT	30
		PEAK SB/WB MOVEMENT	31

MEASURED TRAVEL CHARACTERISTICS:

"Peak to Daily Ratio"

K=	9.62%	**D=**	50.8%

HOURLY DISTRIBUTION OF TRAFFIC VOLUMES

PROJECT Corey Road
LOCATION CODE 12
COUNT LOCATION North of SR 514
GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
01:00 AM	0	0	0	0.00%	0.00%	0.00%
02:00 AM	1	0	1	0.36%	0.00%	0.16%
03:00 AM	1	0	1	0.36%	0.00%	0.16%
04:00 AM	0	2	2	0.00%	0.56%	0.32%
05:00 AM	2	4	6	0.73%	1.11%	0.95%
06:00 AM	2	7	9	0.73%	1.95%	1.42%
07:00 AM	4	17	21	1.45%	4.74%	3.31%
08:00 AM	8	38	46	2.91%	10.58%	7.26%
09:00 AM	18	22	40	6.55%	6.13%	6.31%
10:00 AM	17	23	40	6.18%	6.41%	6.31%
11:00 AM	10	26	36	3.64%	7.24%	5.68%
12:00 PM	9	18	27	3.27%	5.01%	4.26%
01:00 PM	15	14	29	5.45%	3.90%	4.57%
02:00 PM	21	21	42	7.64%	5.85%	6.62%
03:00 PM	17	24	41	6.18%	6.69%	6.47%
04:00 PM	19	18	37	6.91%	5.01%	5.84%
05:00 PM	27	24	51	9.82%	6.69%	8.04%
06:00 PM	29	25	54	10.55%	6.96%	8.52%
07:00 PM	28	25	53	10.18%	6.96%	8.36%
08:00 PM	23	28	51	8.36%	7.80%	8.04%
09:00 PM	9	12	21	3.27%	3.34%	3.31%
10:00 PM	12	6	18	4.36%	1.67%	2.84%
11:00 PM	1	3	4	0.36%	0.84%	0.63%
12:00 AM	2	2	4	0.73%	0.56%	0.63%
TOTALS	**275**	**359**	**634**	**100.00%**	**100.00%**	**100.00%**

Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	Medplex Pkwy.	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 11-016.48u

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	11
7:15 - 7:30	0	0	0	1	0	15
7:30 - 7:45	0	0	0	0	0	10
7:45 - 8:00	0	0	0	0	0	8
8:00 - 8:15	0	0	0	1	0	10
8:15 - 8:30	0	0	0	2	0	12
8:30 - 8:45	0	0	0	4	0	12
8:45 - 9:00	0	0	0	0	0	6
	0	0	0	8	0	84

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	13	143	0	0	117	3
7:15 - 7:30	24	164	0	0	150	0
7:30 - 7:45	22	156	0	0	165	0
7:45 - 8:00	29	221	0	0	163	0
8:00 - 8:15	22	227	0	0	154	6
8:15 - 8:30	25	183	0	0	153	4
8:30 - 8:45	11	132	0	0	138	2
8:45 - 9:00	24	137	0	0	135	5
	170	1,363	0	0	1,175	20

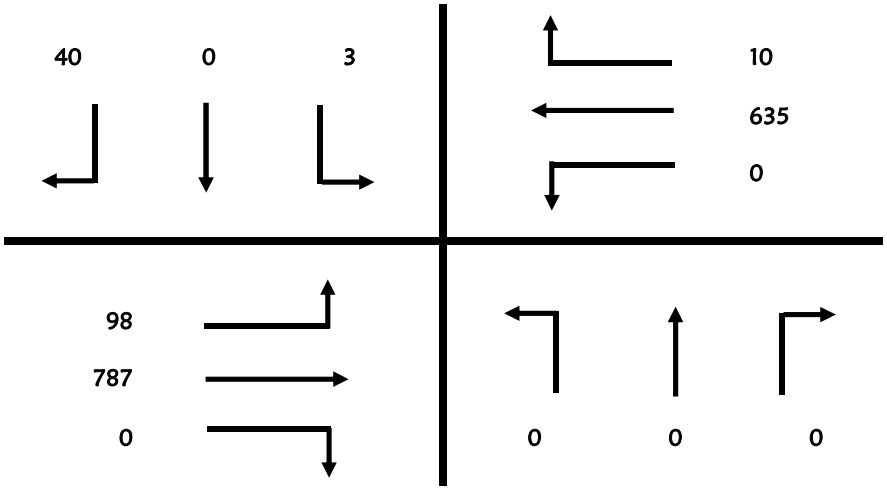
North / South
Medplex Pkwy.

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:30 - 8:30

Peak Hour Factor
0.93

Total Pk Hr Voume
1,573



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	Medplex Pkwy.		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	7:00	to	9:00	**Trucks**	

GMB Project #: 11-016.48u

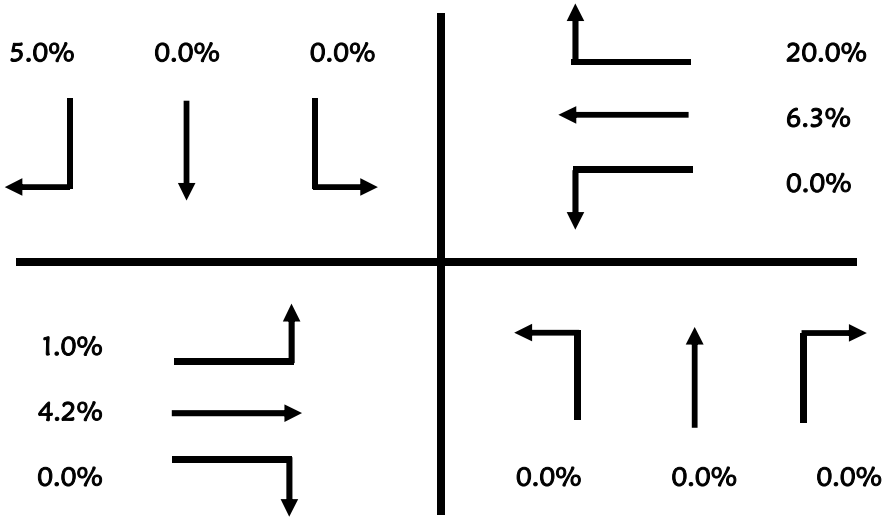
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	1
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	2
8:30 - 8:45	0	0	0	0	0	2
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	3	0	0	1	1
7:15 - 7:30	0	7	0	0	7	0
7:30 - 7:45	0	11	0	0	4	0
7:45 - 8:00	0	4	0	0	16	0
8:00 - 8:15	0	10	0	0	4	1
8:15 - 8:30	1	8	0	0	16	1
8:30 - 8:45	0	5	0	0	9	0
8:45 - 9:00	0	8	0	0	11	1

North / South
Medplex Pkwy.

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:30 - 8:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	Medplex Pkwy.		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	7:00	to	9:00	**U-Turn & RTOR**	

GMB Project #: 11-016.48u

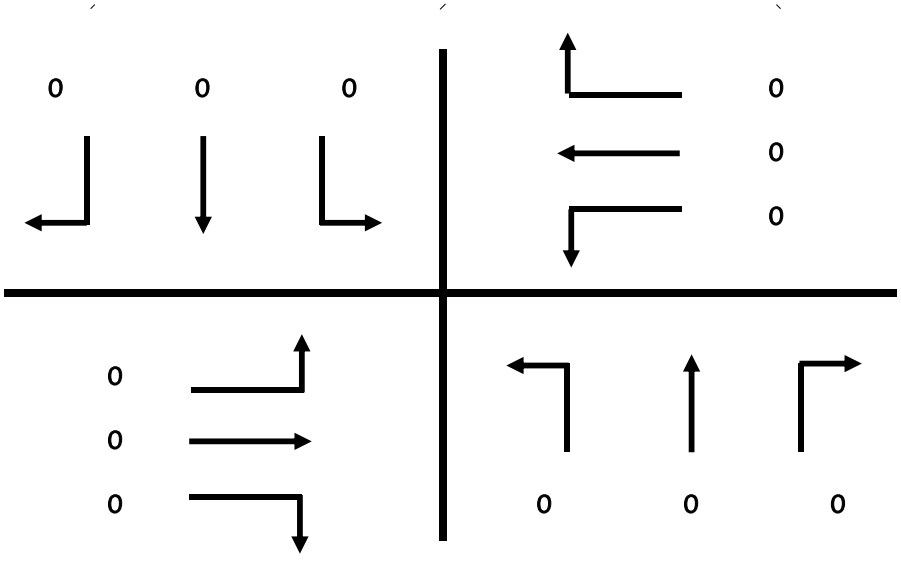
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
Medplex Pkwy.

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:30 - 8:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	Medplex Pkwy.	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		**All Vehicles**
Time Period	16:00 to 18:00		

GMB Project #: 11-016.48u

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	4	0	15
16:15 - 16:30	0	0	0	2	0	25
16:30 - 16:45	0	0	0	1	0	21
16:45 - 17:00	0	0	0	2	0	20
17:00 - 17:15	0	0	0	1	0	30
17:15 - 17:30	0	0	0	0	0	13
17:30 - 17:45	0	0	0	3	0	15
17:45 - 18:00	0	0	0	1	0	17
	0	0	0	14	0	156

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	13	160	0	0	188	3
16:15 - 16:30	13	184	0	0	191	1
16:30 - 16:45	6	160	0	0	224	4
16:45 - 17:00	11	173	0	0	222	2
17:00 - 17:15	13	178	0	0	227	1
17:15 - 17:30	8	143	0	0	223	1
17:30 - 17:45	12	167	0	0	236	0
17:45 - 18:00	11	119	0	0	244	4
	87	1,284	0	0	1,755	16

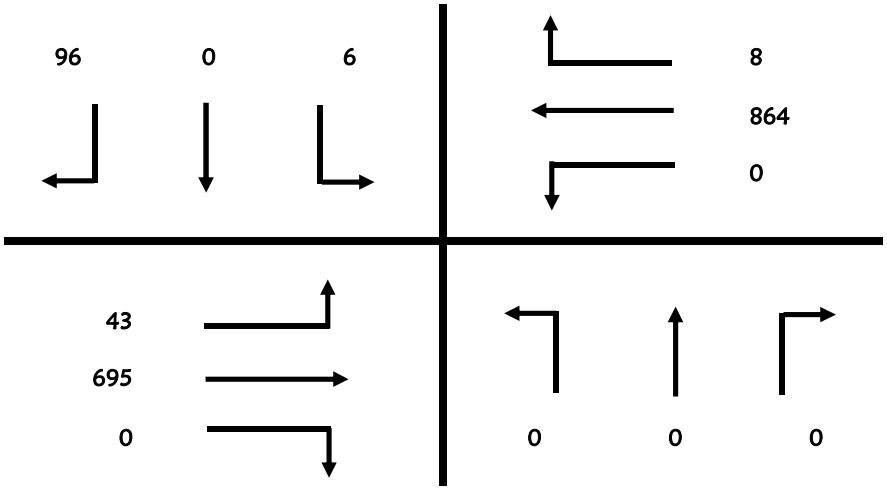
North / South
Medplex Pkwy.

East / West
SR-514 (Malabar Rd.)

Peak Hour
16:15 - 17:15

Peak Hour Factor
0.95

Total Pk Hr Voume
1,712



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	Medplex Pkwy.		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	16:00	to	18:00	**Trucks**	

GMB Project #: 11-016.48u

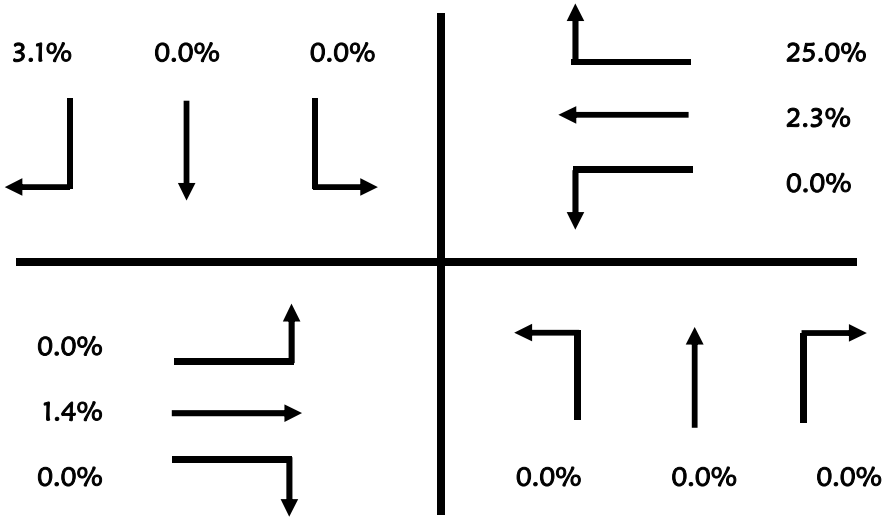
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	1
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	1
17:00 - 17:15	0	0	0	0	0	1
17:15 - 17:30	0	0	0	0	0	1
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	2	0	0	3	0
16:15 - 16:30	0	1	0	0	6	0
16:30 - 16:45	0	3	0	0	5	0
16:45 - 17:00	0	4	0	0	5	1
17:00 - 17:15	0	2	0	0	4	1
17:15 - 17:30	0	0	0	0	5	0
17:30 - 17:45	0	1	0	0	2	0
17:45 - 18:00	1	1	0	0	3	0

North / South
Medplex Pkwy.

East / West
SR-514 (Malabar Rd.)

Peak Hour
16:15 - 17:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	Medplex Pkwy.	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		
Time Period	16:00 to 18:00		**U-Turn & RTOR**

GMB Project #: 11-016.48u

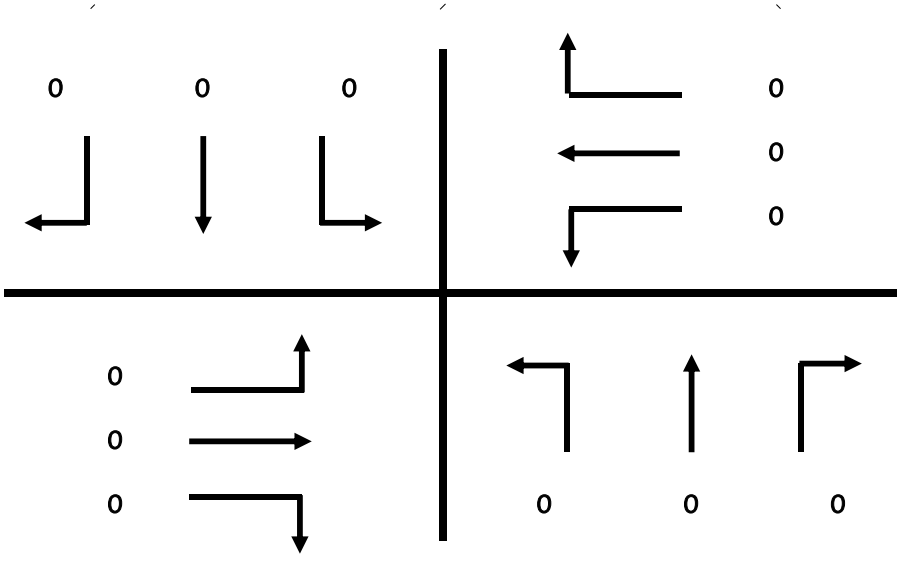
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Medplex Pkwy.

East / West
SR-514 (Malabar Rd.)

Peak Hour
16:15 - 17:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	Marie St.	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 11-016.48u

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	7	0	0	0
7:15 - 7:30	2	0	6	1	0	2
7:30 - 7:45	1	0	11	0	0	1
7:45 - 8:00	0	0	10	1	0	1
8:00 - 8:15	0	0	9	1	0	2
8:15 - 8:30	0	0	4	0	0	0
8:30 - 8:45	1	0	2	1	0	2
8:45 - 9:00	3	1	4	0	0	2
	7	1	53	4	0	10

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	138	1	0	81	0
7:15 - 7:30	1	181	3	0	76	0
7:30 - 7:45	1	193	0	0	132	0
7:45 - 8:00	1	210	0	1	115	0
8:00 - 8:15	2	206	0	3	97	1
8:15 - 8:30	1	155	2	5	93	0
8:30 - 8:45	1	146	2	4	82	2
8:45 - 9:00	0	105	2	2	102	1
	7	1,334	10	15	778	4

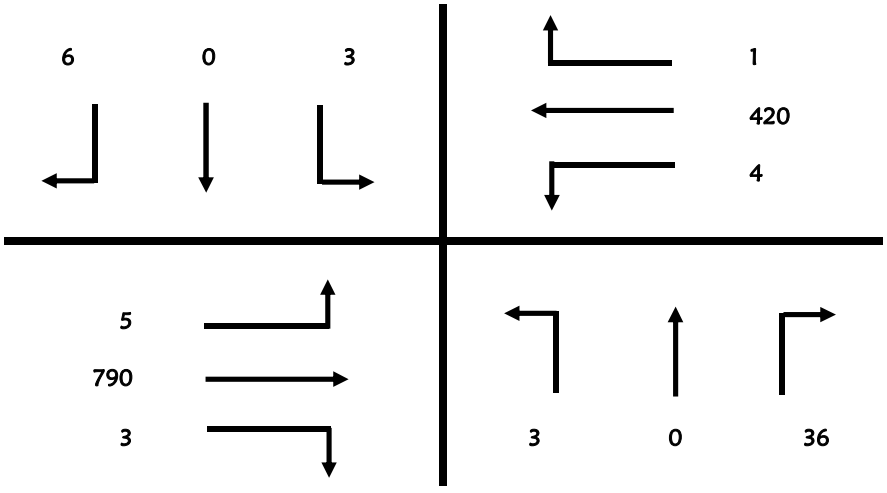
North / South
Marie St.

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.94

Total Pk Hr Voume
1,271



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	Marie St.		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	7:00	to	9:00	**Trucks**	

GMB Project #: 11-016.48u

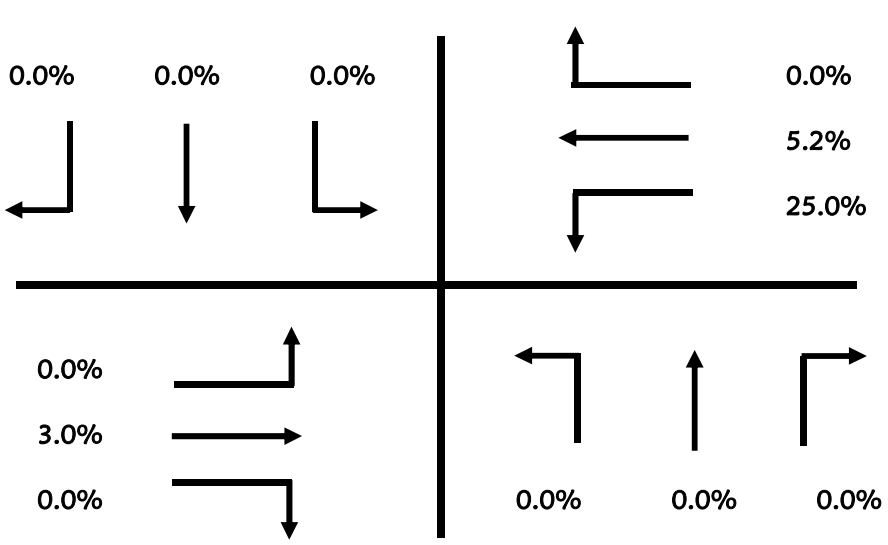
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	9	0	0	5	0
7:15 - 7:30	0	6	0	0	2	0
7:30 - 7:45	0	7	0	0	12	0
7:45 - 8:00	0	7	0	0	1	0
8:00 - 8:15	0	4	0	1	7	0
8:15 - 8:30	0	2	0	1	3	0
8:30 - 8:45	0	2	0	0	2	1
8:45 - 9:00	0	3	0	0	2	0

North / South
Marie St.

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	Marie St.		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	7:00	to	9:00	**U-Turn & RTOR**	

GMB Project #: 11-016.48u

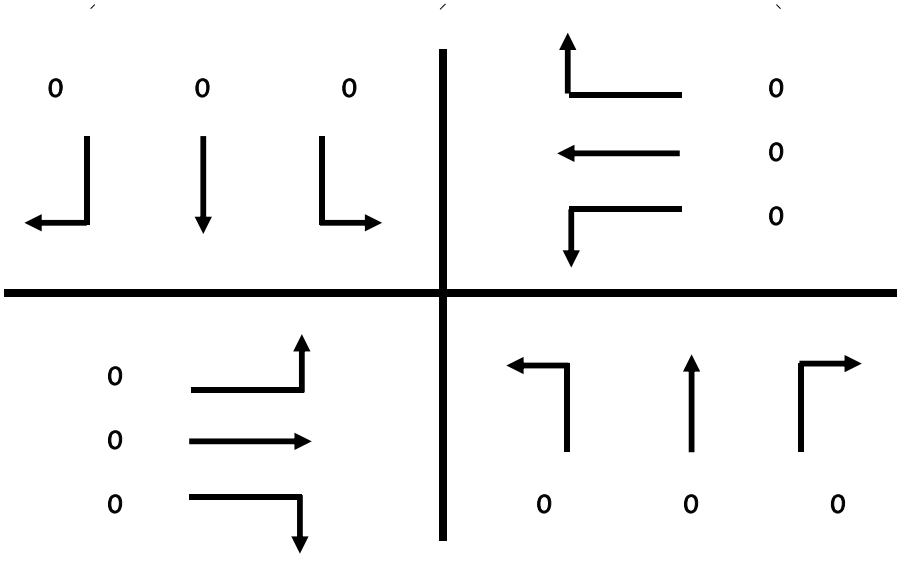
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
Marie St.

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	Marie St.	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		**All Vehicles**
Time Period	16:00 to 18:00		

GMB Project #: 11-016.48u

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	4	2	0	1
16:15 - 16:30	0	0	3	0	1	1
16:30 - 16:45	1	0	3	1	1	2
16:45 - 17:00	0	0	4	1	1	0
17:00 - 17:15	4	0	6	0	1	1
17:15 - 17:30	4	0	4	0	0	2
17:30 - 17:45	1	0	5	0	0	0
17:45 - 18:00	0	0	4	0	0	1
	10	1	33	4	4	8

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	130	1	7	173	1
16:15 - 16:30	2	139	0	12	166	0
16:30 - 16:45	2	114	0	7	183	0
16:45 - 17:00	2	102	0	9	161	0
17:00 - 17:15	0	144	0	3	226	3
17:15 - 17:30	1	135	0	6	239	0
17:30 - 17:45	0	131	0	8	224	2
17:45 - 18:00	0	123	0	7	221	2
	7	1,018	1	59	1,593	8

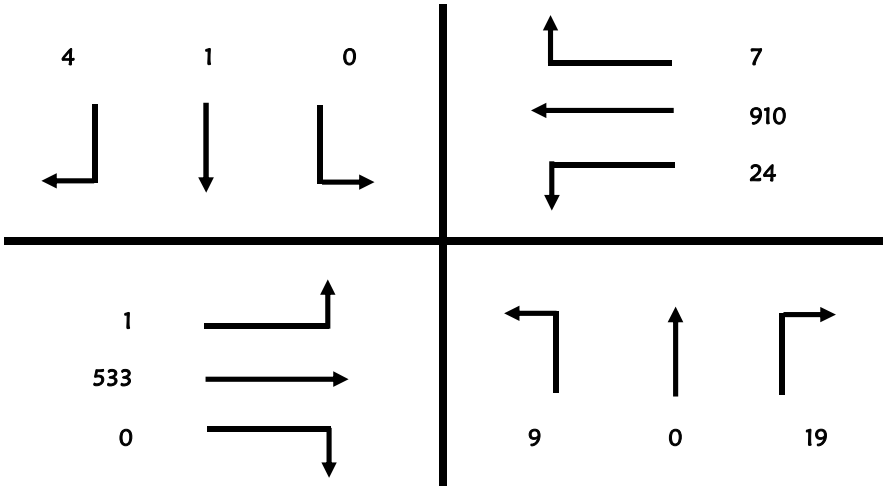
North / South
Marie St.

East / West
SR-514 (Malabar Rd.)

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.96

Total Pk Hr Voume
1,508



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	Marie St.		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	16:00	to	18:00	**Trucks**	

GMB Project #: 11-016.48u

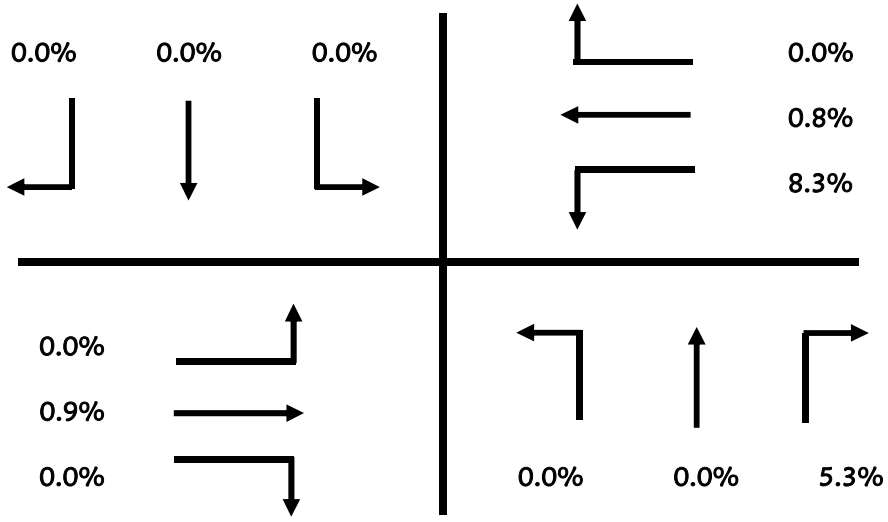
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	1	0	0	1	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	1	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	4	0	1	3	0
16:15 - 16:30	0	5	0	1	7	0
16:30 - 16:45	0	2	0	0	2	0
16:45 - 17:00	0	0	0	1	4	0
17:00 - 17:15	0	3	0	0	5	0
17:15 - 17:30	0	1	0	2	0	0
17:30 - 17:45	0	1	0	0	1	0
17:45 - 18:00	0	0	0	0	1	0

North / South
Marie St.

East / West
SR-514 (Malabar Rd.)

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	Marie St.	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		
Time Period	16:00 to 18:00		**U-Turn & RTOR**

GMB Project #: 11-016.48u

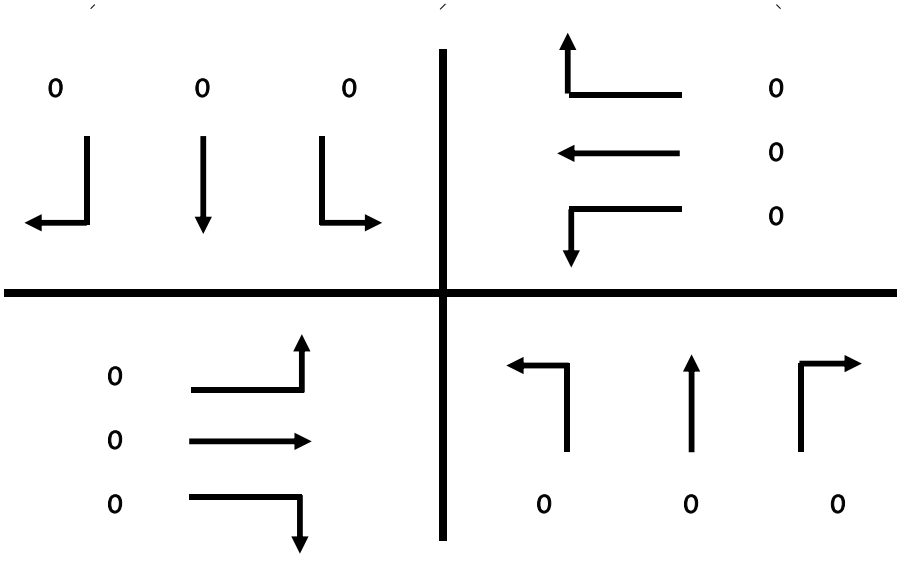
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Marie St.

East / West
SR-514 (Malabar Rd.)

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	US-1	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 11-016.48u

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	35	6	98	0	69	42
7:15 - 7:30	33	7	127	0	92	32
7:30 - 7:45	62	8	197	0	110	58
7:45 - 8:00	60	8	154	0	82	63
8:00 - 8:15	41	6	139	0	89	37
8:15 - 8:30	45	5	116	0	74	49
8:30 - 8:45	32	5	114	0	89	48
8:45 - 9:00	40	6	108	0	73	53
	348	51	1,053	0	678	382

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	89	0	44	0	0	0
7:15 - 7:30	96	0	39	0	0	0
7:30 - 7:45	147	0	56	0	0	0
7:45 - 8:00	170	0	71	0	0	0
8:00 - 8:15	161	0	48	0	0	0
8:15 - 8:30	145	0	44	0	0	0
8:30 - 8:45	113	0	21	0	0	0
8:45 - 9:00	69	0	16	0	0	0
	990	0	339	0	0	0

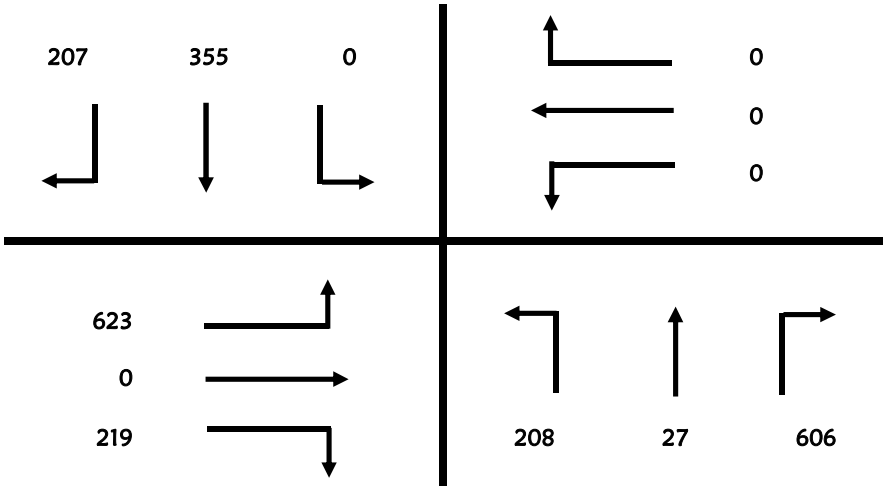
North / South
US-1

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:30 - 8:30

Peak Hour Factor
0.88

Total Pk Hr Voume
2,245



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	US-1		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	7:00	to	9:00	**Trucks**	

GMB Project #: 11-016.48u

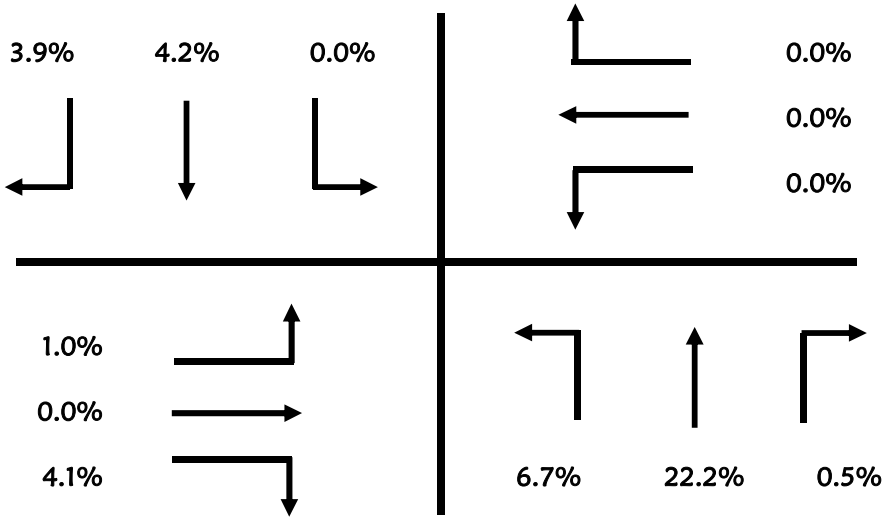
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	3	2	0	0	1	1
7:15 - 7:30	4	2	1	0	2	0
7:30 - 7:45	7	1	1	0	5	4
7:45 - 8:00	0	2	0	0	2	2
8:00 - 8:15	5	2	1	0	7	2
8:15 - 8:30	2	1	1	0	1	0
8:30 - 8:45	3	0	0	0	4	1
8:45 - 9:00	0	1	0	0	6	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	2	0	4	0	0	0
7:15 - 7:30	2	0	3	0	0	0
7:30 - 7:45	1	0	4	0	0	0
7:45 - 8:00	4	0	1	0	0	0
8:00 - 8:15	1	0	4	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	1	0	0	0
8:45 - 9:00	2	0	0	0	0	0

North / South
US-1

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:30 - 8:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	US-1	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		
Time Period	7:00 to 9:00		**U-Turn & RTOR**

GMB Project #: 11-016.48u

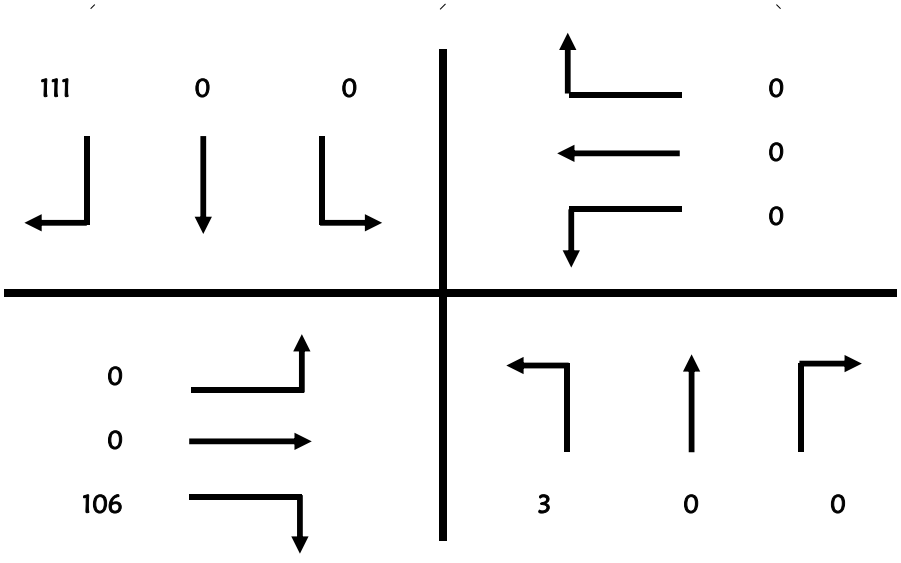
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	15
7:15 - 7:30	0	0	0	0	0	13
7:30 - 7:45	0	0	0	0	0	26
7:45 - 8:00	1	0	0	0	0	34
8:00 - 8:15	1	0	0	0	0	20
8:15 - 8:30	1	0	0	0	0	31
8:30 - 8:45	0	0	0	0	0	22
8:45 - 9:00	0	0	0	0	0	26

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	19	0	0	0
7:15 - 7:30	0	0	17	0	0	0
7:30 - 7:45	0	0	21	0	0	0
7:45 - 8:00	0	0	37	0	0	0
8:00 - 8:15	0	0	22	0	0	0
8:15 - 8:30	0	0	26	0	0	0
8:30 - 8:45	0	0	10	0	0	0
8:45 - 9:00	0	0	9	0	0	0

North / South
US-1

East / West
SR-514 (Malabar Rd.)

Peak Hour
7:30 - 8:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	US-1	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		**All Vehicles**
Time Period	16:00 to 18:00		

GMB Project #: 11-016.48u

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	55	6	95	0	115	88
16:15 - 16:30	61	6	97	0	135	106
16:30 - 16:45	85	8	130	0	156	108
16:45 - 17:00	53	7	108	0	158	119
17:00 - 17:15	75	8	132	0	163	172
17:15 - 17:30	73	9	124	0	168	169
17:30 - 17:45	94	9	134	0	160	156
17:45 - 18:00	85	9	130	0	164	151
	581	62	950	0	1,219	1,069

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	70	0	40	0	0	0
16:15 - 16:30	86	0	45	0	0	0
16:30 - 16:45	67	0	34	0	0	0
16:45 - 17:00	69	0	46	0	0	0
17:00 - 17:15	75	0	58	0	0	0
17:15 - 17:30	60	0	38	0	0	0
17:30 - 17:45	68	0	48	0	0	0
17:45 - 18:00	75	0	41	0	0	0
	570	0	350	0	0	0

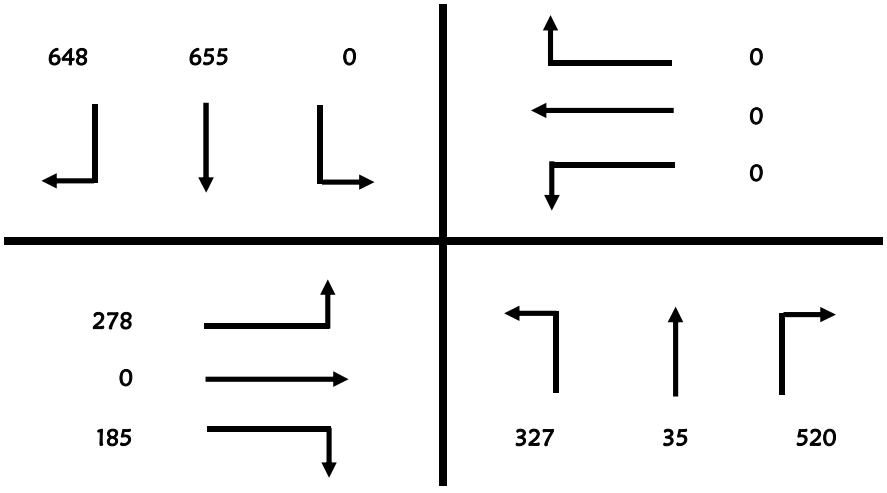
North / South
US-1

East / West
SR-514 (Malabar Rd.)

Peak Hour
17:00 - 18:00

Peak Hour Factor
0.97

Total Pk Hr Voume
2,648



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	Malabar	
Intersection	US-1		&	SR-514 (Malabar Rd.)	
Date	February 3, 2015				
Time Period	16:00	to	18:00	**Trucks**	

GMB Project #: 11-016.48u

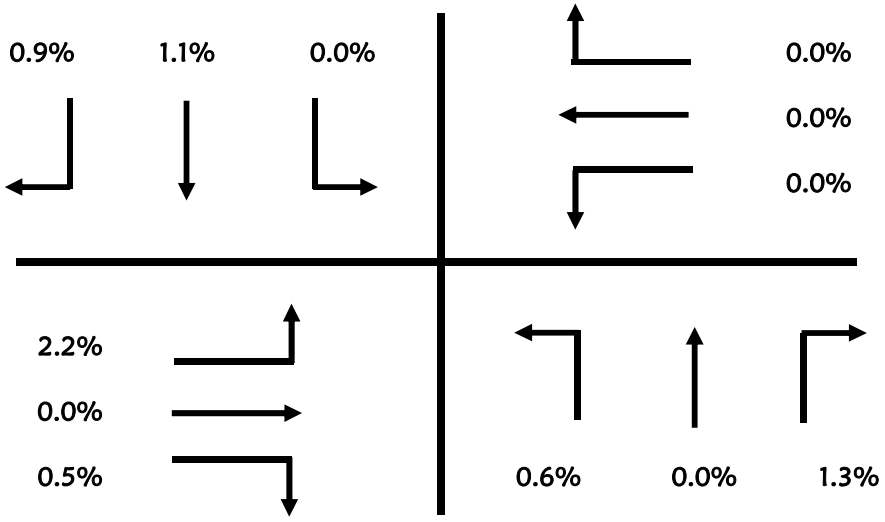
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	4	0	4	4
16:15 - 16:30	3	0	2	0	2	2
16:30 - 16:45	1	0	0	0	3	1
16:45 - 17:00	2	0	1	0	0	2
17:00 - 17:15	2	0	3	0	0	1
17:15 - 17:30	0	0	1	0	4	2
17:30 - 17:45	0	0	3	0	1	0
17:45 - 18:00	0	0	0	0	2	3

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	4	0	0	0	0	0
16:15 - 16:30	2	0	2	0	0	0
16:30 - 16:45	2	0	1	0	0	0
16:45 - 17:00	1	0	0	0	0	0
17:00 - 17:15	3	0	0	0	0	0
17:15 - 17:30	1	0	1	0	0	0
17:30 - 17:45	1	0	0	0	0	0
17:45 - 18:00	1	0	0	0	0	0

North / South
US-1

East / West
SR-514 (Malabar Rd.)

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	Malabar
Intersection	US-1	&	SR-514 (Malabar Rd.)
Date	February 3, 2015		
Time Period	16:00 to 18:00		**U-Turn & RTOR**

GMB Project #: 11-016.48u

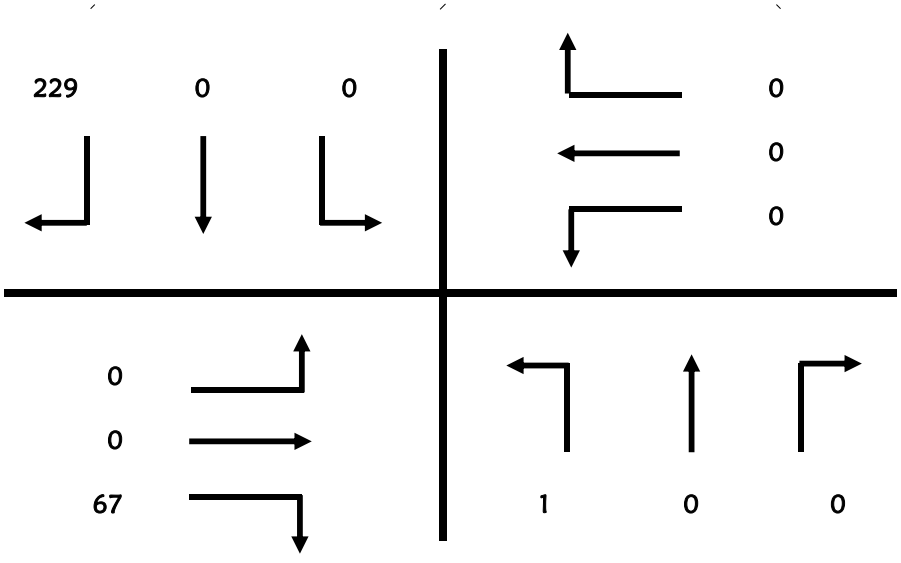
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	25
16:15 - 16:30	2	0	0	0	0	30
16:30 - 16:45	0	0	0	0	0	23
16:45 - 17:00	0	0	0	0	0	36
17:00 - 17:15	1	0	0	0	0	55
17:15 - 17:30	0	0	0	0	0	49
17:30 - 17:45	0	0	0	0	0	69
17:45 - 18:00	0	0	0	0	0	56

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	25	0	0	0
16:15 - 16:30	0	0	18	0	0	0
16:30 - 16:45	0	0	13	0	0	0
16:45 - 17:00	0	0	29	0	0	0
17:00 - 17:15	0	0	21	0	0	0
17:15 - 17:30	0	0	14	0	0	0
17:30 - 17:45	0	0	13	0	0	0
17:45 - 18:00	0	0	19	0	0	0

North / South
US-1

East / West
SR-514 (Malabar Rd.)

Peak Hour
17:00 - 18:00



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Weber Road	&	SR 514
Date	September 23, 2014		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 11-016.68

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	22	0	4	0	0	0
7:15 - 7:30	40	0	6	0	0	0
7:30 - 7:45	49	0	7	0	0	0
7:45 - 8:00	35	0	11	0	0	0
8:00 - 8:15	32	0	5	0	0	0
8:15 - 8:30	29	0	4	0	0	0
8:30 - 8:45	12	0	6	0	0	0
8:45 - 9:00	27	0	4	0	0	0
	246	0	47	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	111	5	2	85	0
7:15 - 7:30	0	137	9	0	100	0
7:30 - 7:45	0	200	11	1	148	0
7:45 - 8:00	0	193	15	4	137	0
8:00 - 8:15	0	164	20	4	111	0
8:15 - 8:30	0	136	16	4	134	0
8:30 - 8:45	0	120	14	3	98	0
8:45 - 9:00	0	111	18	1	101	0
	0	1,172	108	19	914	0

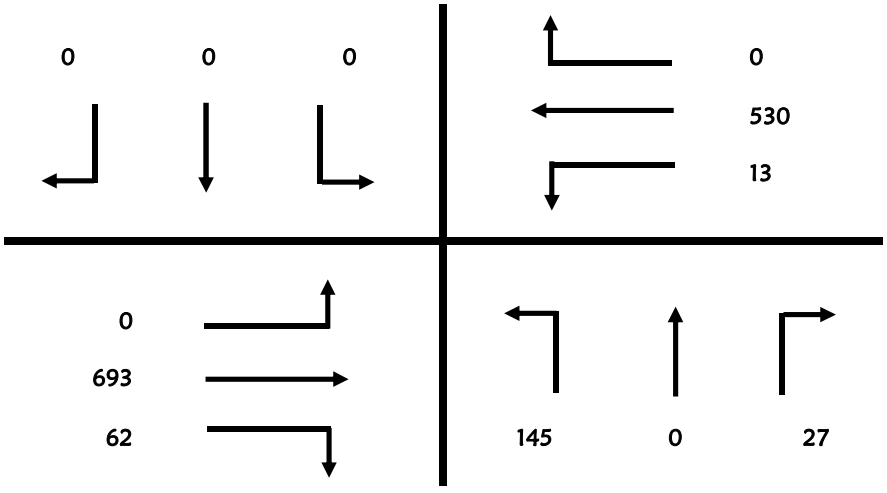
North / South
Weber Road

East / West
SR 514

Peak Hour
7:30 - 8:30

Peak Hour Factor
0.88

Total Pk Hr Voume
1,470



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	0	
Intersection	Weber Road		&	SR 514	
Date	September 23, 2014				
Time Period	7:00	to	9:00		**Trucks**

GMB Project #: 11-016.68

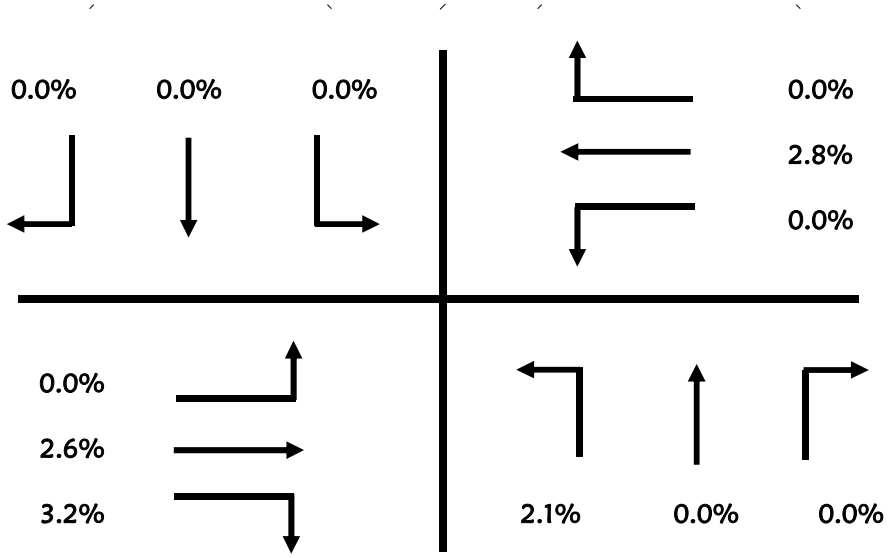
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	1	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	2	0	0	0	0	0
8:00 - 8:15	1	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	1	0	0	0	0	0
8:45 - 9:00	1	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	4	0	0	3	0
7:15 - 7:30	0	3	0	0	0	0
7:30 - 7:45	0	1	0	0	4	0
7:45 - 8:00	0	4	0	0	4	0
8:00 - 8:15	0	5	1	0	2	0
8:15 - 8:30	0	8	1	0	5	0
8:30 - 8:45	0	3	0	0	5	0
8:45 - 9:00	0	5	0	0	6	0

North / South
Weber Road

East / West
SR 514

Peak Hour
7:30 - 8:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Weber Road	&	SR 514
Date	September 23, 2014		
Time Period	7:00 to 9:00		**U-Turn & RTOR**

GMB Project #: 11-016.68

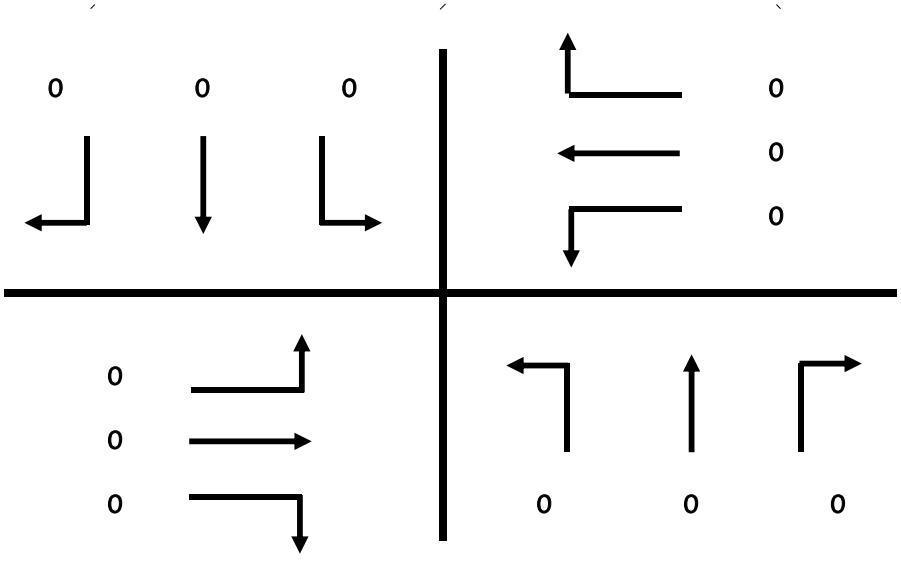
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
Weber Road

East / West
SR 514

Peak Hour
7:30 - 8:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Weber Road	&	SR 514
Date	September 23, 2014		**All Vehicles**
Time Period	16:00 to 18:00		

GMB Project #: 11-016.68

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	31	0	4	0	0	0
16:15 - 16:30	18	0	5	0	0	0
16:30 - 16:45	22	0	5	0	0	0
16:45 - 17:00	23	0	5	0	0	0
17:00 - 17:15	22	0	6	0	0	0
17:15 - 17:30	8	0	2	0	0	0
17:30 - 17:45	23	0	4	0	0	0
17:45 - 18:00	10	0	1	0	0	0
	157	0	32	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	117	33	3	114	0
16:15 - 16:30	0	136	55	12	204	0
16:30 - 16:45	0	132	49	7	207	0
16:45 - 17:00	0	130	24	7	210	0
17:00 - 17:15	0	122	39	11	200	0
17:15 - 17:30	0	95	21	8	184	0
17:30 - 17:45	0	68	17	3	189	0
17:45 - 18:00	0	72	25	4	180	0
	0	872	263	55	1,488	0

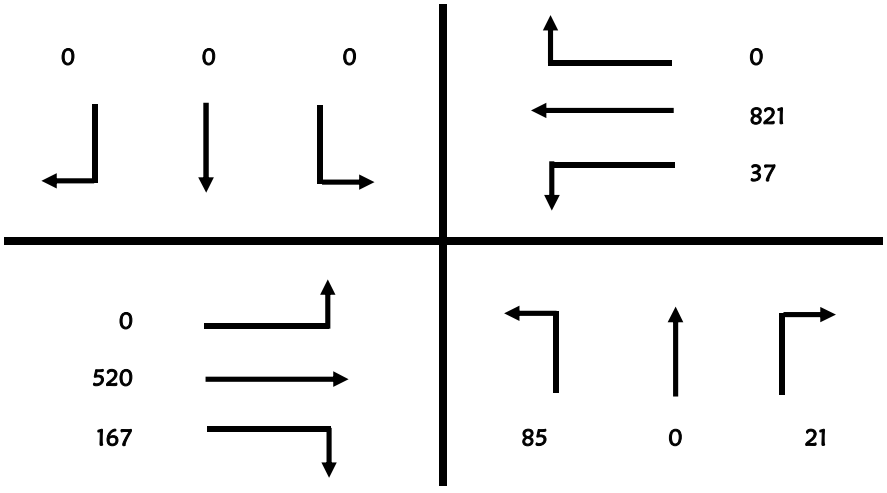
North / South
Weber Road

East / West
SR 514

Peak Hour
16:15 - 17:15

Peak Hour Factor
0.96

Total Pk Hr Voume
1,651



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard		**City**	0	
Intersection	Weber Road		&	SR 514	
Date	September 23, 2014				
Time Period	16:00	to	18:00		**Trucks**

GMB Project #: 11-016.68

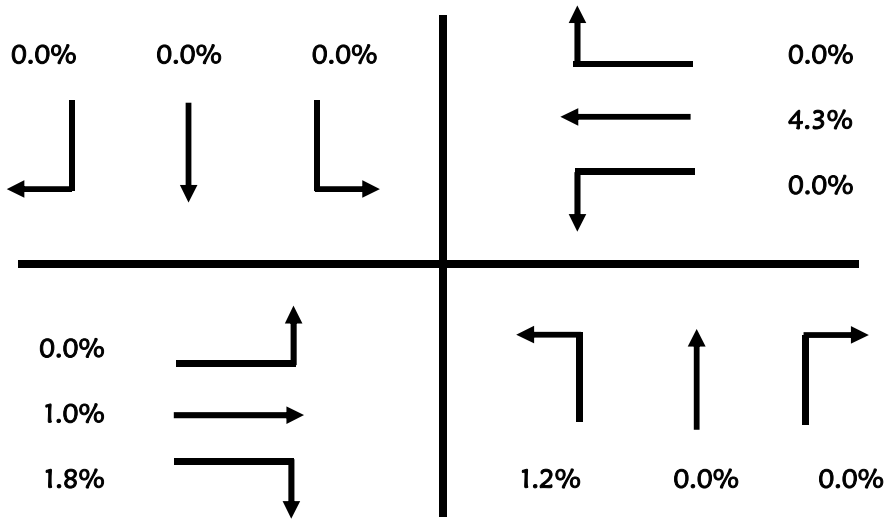
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	1	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	2	0
16:15 - 16:30	0	2	0	0	7	0
16:30 - 16:45	0	1	2	0	12	0
16:45 - 17:00	0	1	1	0	11	0
17:00 - 17:15	0	1	0	0	5	0
17:15 - 17:30	0	0	1	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	3	1	0	1	0

North / South
Weber Road

East / West
SR 514

Peak Hour
16:15 - 17:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Weber Road	&	SR 514
Date	September 23, 2014		
Time Period	16:00 to 18:00		**U-Turn & RTOR**

GMB Project #: 11-016.68

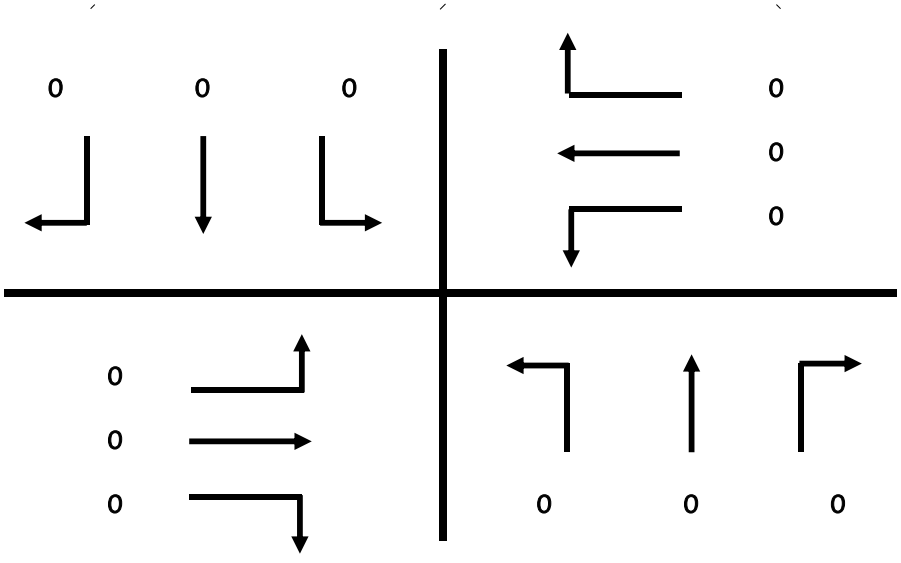
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Weber Road

East / West
SR 514

Peak Hour
16:15 - 17:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Corey Road	&	SR 514
Date	September 23, 2014		**All Vehicles**
Time Period	7:00 to 9:00		

GMB Project #: 11-016.68

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	15	0	10	4	0	2
7:15 - 7:30	25	4	18	11	2	8
7:30 - 7:45	26	2	21	7	2	8
7:45 - 8:00	24	2	21	5	4	11
8:00 - 8:15	17	1	21	6	0	6
8:15 - 8:30	21	0	8	0	0	5
8:30 - 8:45	16	0	8	4	1	4
8:45 - 9:00	22	0	3	1	1	3
	166	9	110	38	10	47

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	116	3	0	68	0
7:15 - 7:30	7	143	5	4	88	0
7:30 - 7:45	7	197	7	1	104	0
7:45 - 8:00	4	198	9	1	97	2
8:00 - 8:15	4	160	8	4	90	1
8:15 - 8:30	2	131	9	2	85	0
8:30 - 8:45	2	119	4	5	80	4
8:45 - 9:00	2	114	7	5	88	0
	28	1,178	52	22	700	7

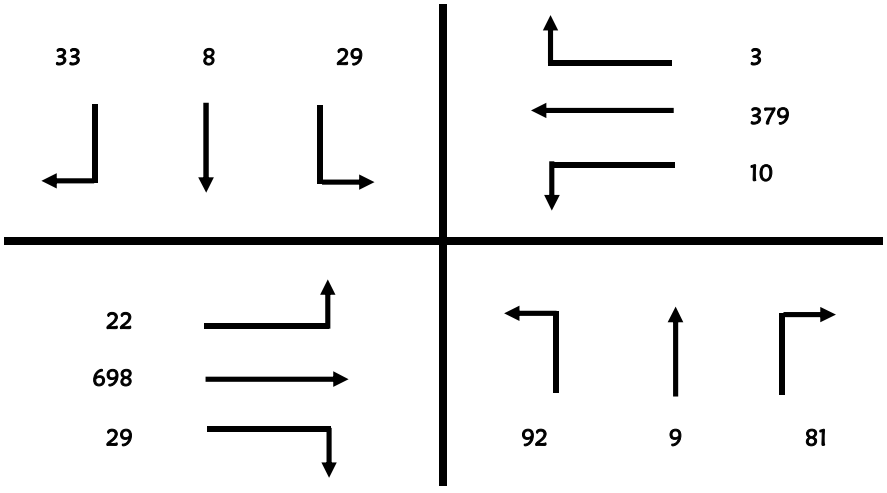
North / South
Corey Road

East / West
SR 514

Peak Hour
7:15 - 8:15

Peak Hour Factor
0.91

Total Pk Hr Voume
1,393



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Corey Road	&	SR 514
Date	September 23, 2014		
Time Period	7:00 to 9:00		**Trucks**

GMB Project #: 11-016.68

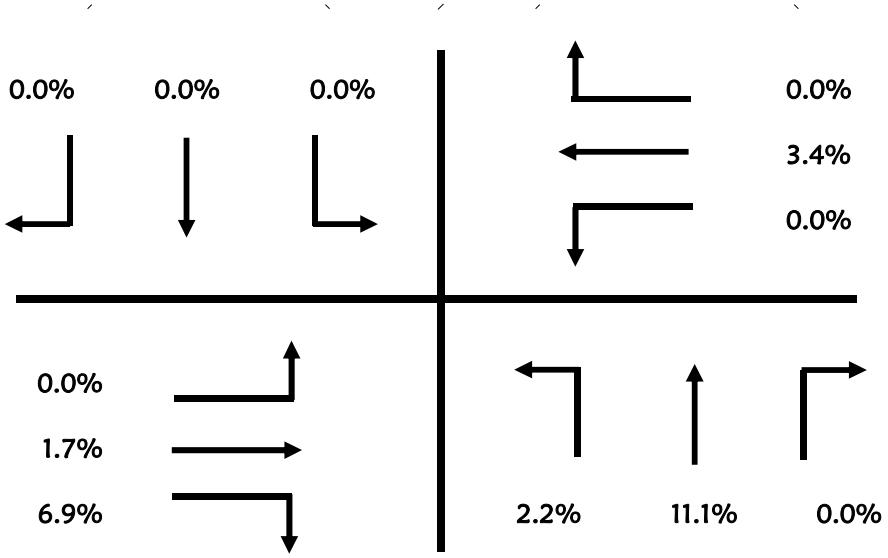
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	0	0	0	0
7:15 - 7:30	0	1	0	0	0	0
7:30 - 7:45	2	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	1	0	0	0	0	1
8:30 - 8:45	1	0	0	0	0	2
8:45 - 9:00	1	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	4	0	0	3	0
7:15 - 7:30	0	3	0	0	2	0
7:30 - 7:45	0	2	0	0	4	0
7:45 - 8:00	0	3	0	0	4	0
8:00 - 8:15	0	4	2	0	3	0
8:15 - 8:30	1	6	0	0	2	0
8:30 - 8:45	0	4	0	0	5	0
8:45 - 9:00	0	6	0	0	6	0

North / South
Corey Road

East / West
SR 514

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Corey Road	&	SR 514
Date	September 23, 2014		
Time Period	7:00 to 9:00		**U-Turn & RTOR**

GMB Project #: 11-016.68

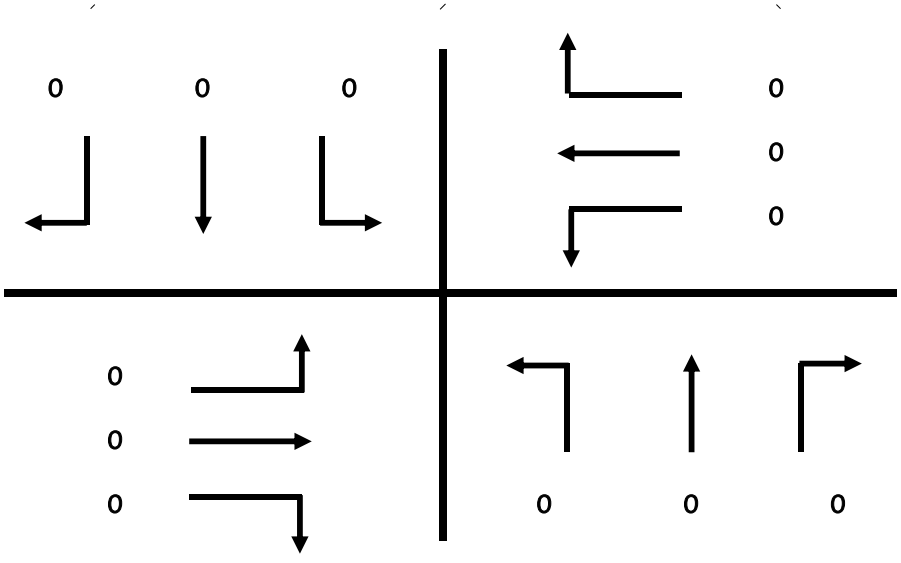
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

North / South
Corey Road

East / West
SR 514

Peak Hour
7:15 - 8:15



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Corey Road	&	SR 514
Date	September 23, 2014		**All Vehicles**
Time Period	16:00 to 18:00		

GMB Project #: 11-016.68

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	4	0	5	2	1	2
16:15 - 16:30	5	0	5	3	0	1
16:30 - 16:45	12	1	5	3	2	5
16:45 - 17:00	9	2	8	2	1	3
17:00 - 17:15	9	1	6	2	1	4
17:15 - 17:30	11	0	9	3	1	4
17:30 - 17:45	10	2	4	0	0	3
17:45 - 18:00	9	1	2	0	0	1
	69	7	44	15	6	23

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	2	98	20	9	127	0
16:15 - 16:30	6	89	14	9	140	3
16:30 - 16:45	5	135	15	12	202	9
16:45 - 17:00	7	145	13	12	198	8
17:00 - 17:15	5	118	13	15	191	7
17:15 - 17:30	6	109	27	11	225	7
17:30 - 17:45	3	54	11	9	191	1
17:45 - 18:00	8	52	12	13	161	5
	42	800	125	90	1,435	40

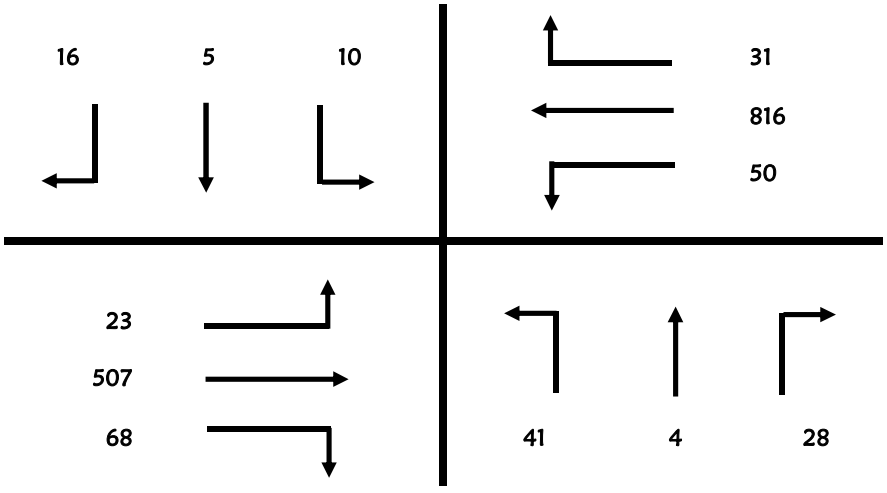
North / South
Corey Road

East / West
SR 514

Peak Hour
16:30 - 17:30

Peak Hour Factor
0.97

Total Pk Hr Voume
1,599



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Corey Road	&	SR 514
Date	September 23, 2014		
Time Period	16:00 to 18:00		**Trucks**

GMB Project #: 11-016.68

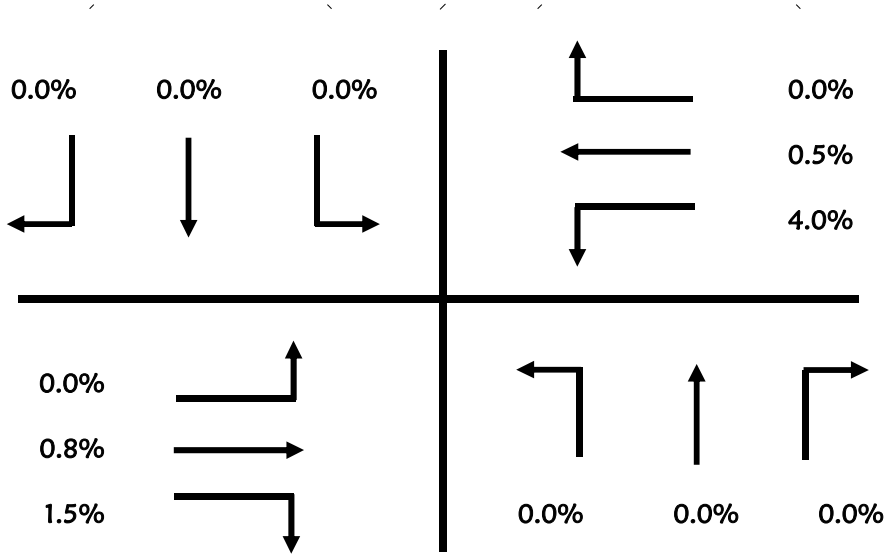
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	1	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	1	2	0
16:15 - 16:30	0	1	0	0	3	0
16:30 - 16:45	0	2	0	1	2	0
16:45 - 17:00	0	2	1	1	2	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	1	0
17:45 - 18:00	0	3	0	0	2	0

North / South
Corey Road

East / West
SR 514

Peak Hour
16:30 - 17:30



Roadway Count Summary

GMB Engineers & Planners, Inc.

County	Brevard	**City**	0
Intersection	Corey Road	&	SR 514
Date	September 23, 2014		
Time Period	16:00 to 18:00		**U-Turn & RTOR**

GMB Project #: 11-016.68

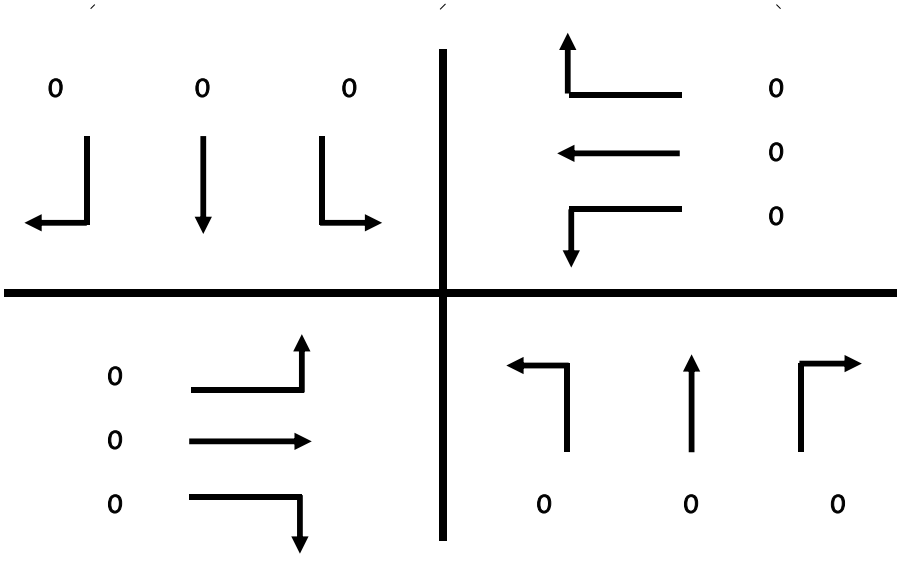
Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

North / South
Corey Road

East / West
SR 514

Peak Hour
16:30 - 17:30



Appendix D

FDOT Seasonal & Axle Adjustment Factors

2013 Peak Season Factor Category Report - Report Type: ALL
Category: 7000 BREVARD COUNTYWIDE

MOCF: 0.94

Week	Dates	SF	PSCF
1	01/01/2013 - 01/05/2013	1.00	1.06
2	01/06/2013 - 01/12/2013	1.00	1.06
3	01/13/2013 - 01/19/2013	1.00	1.06
4	01/20/2013 - 01/26/2013	0.99	1.05
* 5	01/27/2013 - 02/02/2013	0.97	1.03
* 6	02/03/2013 - 02/09/2013	0.96	1.02
* 7	02/10/2013 - 02/16/2013	0.95	1.01
* 8	02/17/2013 - 02/23/2013	0.93	0.99
* 9	02/24/2013 - 03/02/2013	0.92	0.98
*10	03/03/2013 - 03/09/2013	0.92	0.98
*11	03/10/2013 - 03/16/2013	0.91	0.97
*12	03/17/2013 - 03/23/2013	0.90	0.96
*13	03/24/2013 - 03/30/2013	0.92	0.98
*14	03/31/2013 - 04/06/2013	0.93	0.99
*15	04/07/2013 - 04/13/2013	0.95	1.01
*16	04/14/2013 - 04/20/2013	0.97	1.03
*17	04/21/2013 - 04/27/2013	0.98	1.04
18	04/28/2013 - 05/04/2013	0.99	1.05
19	05/05/2013 - 05/11/2013	1.00	1.06
20	05/12/2013 - 05/18/2013	1.01	1.07
21	05/19/2013 - 05/25/2013	1.02	1.09
22	05/26/2013 - 06/01/2013	1.02	1.09
23	06/02/2013 - 06/08/2013	1.03	1.10
24	06/09/2013 - 06/15/2013	1.04	1.11
25	06/16/2013 - 06/22/2013	1.05	1.12
26	06/23/2013 - 06/29/2013	1.04	1.11
27	06/30/2013 - 07/06/2013	1.04	1.11
28	07/07/2013 - 07/13/2013	1.04	1.11
29	07/14/2013 - 07/20/2013	1.04	1.11
30	07/21/2013 - 07/27/2013	1.04	1.11
31	07/28/2013 - 08/03/2013	1.04	1.11
32	08/04/2013 - 08/10/2013	1.04	1.11
33	08/11/2013 - 08/17/2013	1.04	1.11
34	08/18/2013 - 08/24/2013	1.04	1.11
35	08/25/2013 - 08/31/2013	1.05	1.12
36	09/01/2013 - 09/07/2013	1.06	1.13
37	09/08/2013 - 09/14/2013	1.06	1.13
38	09/15/2013 - 09/21/2013	1.07	1.14
39	09/22/2013 - 09/28/2013	1.06	1.13
40	09/29/2013 - 10/05/2013	1.05	1.12
41	10/06/2013 - 10/12/2013	1.04	1.11
42	10/13/2013 - 10/19/2013	1.03	1.10
43	10/20/2013 - 10/26/2013	1.03	1.10
44	10/27/2013 - 11/02/2013	1.03	1.10
45	11/03/2013 - 11/09/2013	1.03	1.10
46	11/10/2013 - 11/16/2013	1.03	1.10
47	11/17/2013 - 11/23/2013	1.03	1.10
48	11/24/2013 - 11/30/2013	1.02	1.09
49	12/01/2013 - 12/07/2013	1.01	1.07
50	12/08/2013 - 12/14/2013	1.01	1.07
51	12/15/2013 - 12/21/2013	1.00	1.06
52	12/22/2013 - 12/28/2013	1.00	1.06
53	12/29/2013 - 12/31/2013	1.00	1.06

* Peak Season

2013 Weekly Axle Factor Category Report - Report Type: ALL

County: 70 - BREVARD

Week	Dates	7001	7002	7003	7004
		BREVARD COUNTYWIDE	I95, SR520 - SR-44	SR514	SR46
1	01/01/2013 - 01/05/2013	0.99	0.81	0.96	0.97
2	01/06/2013 - 01/12/2013	0.99	0.82	0.96	0.97
3	01/13/2013 - 01/19/2013	0.99	0.82	0.96	0.97
4	01/20/2013 - 01/26/2013	0.99	0.82	0.96	0.97
5	01/27/2013 - 02/02/2013	0.99	0.82	0.96	0.97
6	02/03/2013 - 02/09/2013	0.99	0.81	0.96	0.97
7	02/10/2013 - 02/16/2013	0.99	0.81	0.96	0.97
8	02/17/2013 - 02/23/2013	0.99	0.81	0.96	0.97
9	02/24/2013 - 03/02/2013	0.99	0.81	0.96	0.97
10	03/03/2013 - 03/09/2013	0.98	0.81	0.96	0.97
11	03/10/2013 - 03/16/2013	0.98	0.81	0.96	0.97
12	03/17/2013 - 03/23/2013	0.98	0.81	0.96	0.97
13	03/24/2013 - 03/30/2013	0.98	0.81	0.96	0.97
14	03/31/2013 - 04/06/2013	0.98	0.82	0.96	0.97
15	04/07/2013 - 04/13/2013	0.98	0.82	0.96	0.97
16	04/14/2013 - 04/20/2013	0.98	0.82	0.96	0.97
17	04/21/2013 - 04/27/2013	0.98	0.82	0.96	0.97
18	04/28/2013 - 05/04/2013	0.98	0.82	0.96	0.97
19	05/05/2013 - 05/11/2013	0.98	0.81	0.96	0.97
20	05/12/2013 - 05/18/2013	0.98	0.81	0.96	0.97
21	05/19/2013 - 05/25/2013	0.98	0.81	0.96	0.97
22	05/26/2013 - 06/01/2013	0.98	0.82	0.96	0.97
23	06/02/2013 - 06/08/2013	0.98	0.82	0.96	0.97
24	06/09/2013 - 06/15/2013	0.98	0.82	0.96	0.97
25	06/16/2013 - 06/22/2013	0.98	0.82	0.96	0.97
26	06/23/2013 - 06/29/2013	0.98	0.82	0.96	0.97
27	06/30/2013 - 07/06/2013	0.98	0.83	0.96	0.97
28	07/07/2013 - 07/13/2013	0.98	0.83	0.96	0.97
29	07/14/2013 - 07/20/2013	0.98	0.83	0.96	0.97
30	07/21/2013 - 07/27/2013	0.98	0.83	0.96	0.97
31	07/28/2013 - 08/03/2013	0.98	0.82	0.96	0.97
32	08/04/2013 - 08/10/2013	0.98	0.82	0.96	0.97
33	08/11/2013 - 08/17/2013	0.98	0.81	0.96	0.97
34	08/18/2013 - 08/24/2013	0.98	0.81	0.96	0.97
35	08/25/2013 - 08/31/2013	0.98	0.81	0.96	0.97
36	09/01/2013 - 09/07/2013	0.98	0.80	0.96	0.97
37	09/08/2013 - 09/14/2013	0.98	0.80	0.96	0.97
38	09/15/2013 - 09/21/2013	0.98	0.80	0.96	0.97
39	09/22/2013 - 09/28/2013	0.98	0.80	0.96	0.97
40	09/29/2013 - 10/05/2013	0.98	0.80	0.96	0.97
41	10/06/2013 - 10/12/2013	0.98	0.80	0.96	0.97
42	10/13/2013 - 10/19/2013	0.98	0.80	0.96	0.97
43	10/20/2013 - 10/26/2013	0.98	0.80	0.96	0.97
44	10/27/2013 - 11/02/2013	0.98	0.81	0.96	0.97
45	11/03/2013 - 11/09/2013	0.98	0.81	0.96	0.97
46	11/10/2013 - 11/16/2013	0.98	0.81	0.96	0.97
47	11/17/2013 - 11/23/2013	0.98	0.81	0.96	0.97
48	11/24/2013 - 11/30/2013	0.98	0.81	0.96	0.97
49	12/01/2013 - 12/07/2013	0.99	0.81	0.96	0.97
50	12/08/2013 - 12/14/2013	0.99	0.81	0.96	0.97
51	12/15/2013 - 12/21/2013	0.99	0.81	0.96	0.97
52	12/22/2013 - 12/28/2013	0.99	0.82	0.96	0.97
53	12/29/2013 - 12/31/2013	0.99	0.82	0.96	0.97

2013 Weekly Axle Factor Category Report - Report Type: ALL

County: 70 - BREVARD

Week	Dates	7013	7014	7015	7016
		SR528,ORANGE CO-US1	US1,IND RIV CO-SR518	SR508	SR518,US1 TO A1A
1	01/01/2013 - 01/05/2013	0.95	0.98	1.00	0.99
2	01/06/2013 - 01/12/2013	0.95	0.98	1.00	0.99
3	01/13/2013 - 01/19/2013	0.95	0.98	1.00	0.99
4	01/20/2013 - 01/26/2013	0.95	0.98	1.00	0.99
5	01/27/2013 - 02/02/2013	0.95	0.98	1.00	0.99
6	02/03/2013 - 02/09/2013	0.94	0.98	1.00	0.99
7	02/10/2013 - 02/16/2013	0.94	0.98	1.00	0.99
8	02/17/2013 - 02/23/2013	0.94	0.98	1.00	0.99
9	02/24/2013 - 03/02/2013	0.95	0.98	1.00	0.99
10	03/03/2013 - 03/09/2013	0.95	0.97	1.00	0.99
11	03/10/2013 - 03/16/2013	0.95	0.97	1.00	0.99
12	03/17/2013 - 03/23/2013	0.95	0.97	1.00	0.99
13	03/24/2013 - 03/30/2013	0.95	0.97	1.00	0.99
14	03/31/2013 - 04/06/2013	0.95	0.97	1.00	0.99
15	04/07/2013 - 04/13/2013	0.95	0.97	1.00	0.99
16	04/14/2013 - 04/20/2013	0.95	0.97	1.00	0.99
17	04/21/2013 - 04/27/2013	0.95	0.97	1.00	0.99
18	04/28/2013 - 05/04/2013	0.95	0.97	1.00	0.99
19	05/05/2013 - 05/11/2013	0.95	0.97	1.00	0.99
20	05/12/2013 - 05/18/2013	0.95	0.97	1.00	0.99
21	05/19/2013 - 05/25/2013	0.95	0.97	1.00	0.99
22	05/26/2013 - 06/01/2013	0.95	0.97	1.00	0.99
23	06/02/2013 - 06/08/2013	0.95	0.97	1.00	0.99
24	06/09/2013 - 06/15/2013	0.95	0.97	1.00	0.99
25	06/16/2013 - 06/22/2013	0.95	0.97	1.00	0.99
26	06/23/2013 - 06/29/2013	0.95	0.97	1.00	0.99
27	06/30/2013 - 07/06/2013	0.94	0.97	1.00	0.99
28	07/07/2013 - 07/13/2013	0.94	0.97	1.00	0.99
29	07/14/2013 - 07/20/2013	0.94	0.97	1.00	0.99
30	07/21/2013 - 07/27/2013	0.94	0.97	1.00	0.99
31	07/28/2013 - 08/03/2013	0.94	0.97	1.00	0.99
32	08/04/2013 - 08/10/2013	0.94	0.97	1.00	0.99
33	08/11/2013 - 08/17/2013	0.94	0.97	1.00	0.99
34	08/18/2013 - 08/24/2013	0.94	0.97	1.00	0.99
35	08/25/2013 - 08/31/2013	0.94	0.97	1.00	0.99
36	09/01/2013 - 09/07/2013	0.94	0.98	1.00	0.99
37	09/08/2013 - 09/14/2013	0.94	0.98	1.00	0.99
38	09/15/2013 - 09/21/2013	0.94	0.98	1.00	0.99
39	09/22/2013 - 09/28/2013	0.94	0.98	1.00	0.99
40	09/29/2013 - 10/05/2013	0.94	0.98	1.00	0.99
41	10/06/2013 - 10/12/2013	0.94	0.97	1.00	0.99
42	10/13/2013 - 10/19/2013	0.94	0.97	1.00	0.99
43	10/20/2013 - 10/26/2013	0.94	0.97	1.00	0.99
44	10/27/2013 - 11/02/2013	0.95	0.97	1.00	0.99
45	11/03/2013 - 11/09/2013	0.95	0.97	1.00	0.99
46	11/10/2013 - 11/16/2013	0.95	0.97	1.00	0.99
47	11/17/2013 - 11/23/2013	0.95	0.97	1.00	0.99
48	11/24/2013 - 11/30/2013	0.95	0.97	1.00	0.99
49	12/01/2013 - 12/07/2013	0.95	0.98	1.00	0.99
50	12/08/2013 - 12/14/2013	0.95	0.98	1.00	0.99
51	12/15/2013 - 12/21/2013	0.95	0.98	1.00	0.99
52	12/22/2013 - 12/28/2013	0.95	0.98	1.00	0.99
53	12/29/2013 - 12/31/2013	0.95	0.98	1.00	0.99

Appendix E

Signal Timings & SYNCHRO Intersection Analysis Outputs for Year 2015

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	10	15		10		15		
Gap, Ext	4	3.5		3.5		3.5		
Max 1	30	60		40		60		
Max 2								
Yel Clearance	4	5		4		5		
Red Clearance	1.5	2		1.5		2		
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Phase Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	1	1		1		1	1	
Min Recall		1				1		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry				1				
Auto Flash Exit		1				1		
Dual Entry		1				1		
Enable Simul Gap		1				1		
Gaurant Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Auto Flash Parms [1.4.1]

Flash Parameter		Clearance Time	
Mode	VOT_MON	Yellow	45
		Red	30

Auto Flash, Phases/Overlaps [1.4.2]

Yel (phases)	2	6						
Yel (overlaps)								

Phase Options+ [1.1.3]

Reservice								
Walk Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Conflicting Phase								
Conflicting Phase	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Omit Yellow								
Ped Out/Olap								
Start Yel, Next Ph								

Malabar Rd & US 1 (ID 2550) (Standard File)

03/29/12

Detector, Vehicle Parameters 1-24 [5.1]

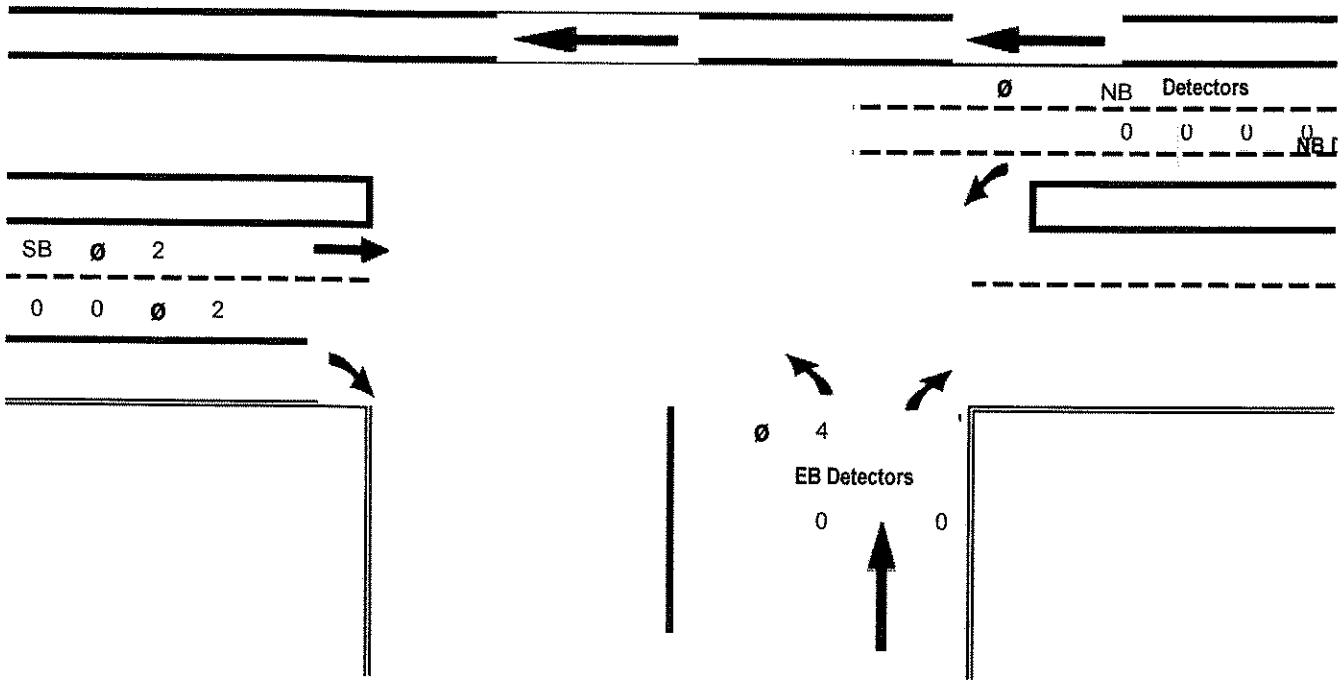
Det#	Call Φ	Switch Φ	Delay	Extend	Queue	NoAct	MaxPres	ErrCnt	FailTime
1	1						15	70	255
2	2						15	70	255
3	2						15	70	255
4	4						15	70	255
5	4						15	70	255
6	6						15	70	255
7	6						15	70	255
8	6						15	70	255
9							15	70	255
10							15	70	255
11							15	70	255
12							15	70	255
13							15	70	255
14							15	70	255
15							15	70	255
16							15	70	55
17							15	70	255
18							15	70	255
19							15	70	255
20							15	70	255
21							15	70	255
22							15	70	255
23							15	70	55
24							15	70	255

Detector, Vehicle Parameters 41-64 [5.1]

Det#	Call Φ	Switch Φ	Delay	Extend	Queue	NoAct	MaxPres	ErrCnt	FailTime
41							15	70	255
42							15	70	255
43							15	70	255
44							15	70	255
45							15	70	255
46							15	70	255
47							15	70	55
48							15	70	255
49							15	70	255
50							15	70	255
51							15	70	255
52							15	70	255
53							15	70	255
54							15	70	255
55							15	70	55
56							15	70	255
57							15	70	255
58							15	70	255
59							15	70	255
60							15	70	255
61							15	70	255
62							15	70	255
63							15	70	55
64							15	70	255

Malabar Rd & US 1 (ID 2550) (Standard File)

3/29/2012



Date Printed: 3/29/2012 Date Last Edited: 9/16/2002

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	98	787	635	10	3	40
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	4	6	20	0	5
Mvmt Flow	105	846	683	11	3	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	683	0	-	0	1740	685
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	1057	-
Critical Hdwy	4.11	-	-	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.345
Pot Cap-1 Maneuver	915	-	-	-	97	443
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	337	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	913	-	-	-	86	442
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	505	-
Stage 2	-	-	-	-	298	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	913	-	-	-	207	442
HCM Lane V/C Ratio	0.115	-	-	-	0.016	0.097
HCM Control Delay (s)	9.5	-	-	-	22.7	14
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0	0.3

Intersection	
Int Delay, s/veh	25.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	693	62	13	530	145	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	3	0	3	2	0
Mvmt Flow	788	70	15	602	165	31

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	858	0	1455	823
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	632	-
Critical Hdwy	-	-	4.1	-	6.42	6.2
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	791	-	~ 143	377
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	530	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	791	-	~ 139	377
Mov Cap-2 Maneuver	-	-	-	-	~ 139	-
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	515	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	219.4
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	154	-	-	791	-
HCM Lane V/C Ratio	1.269	-	-	0.019	-
HCM Control Delay (s)	219.4	-	-	9.6	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	11.5	-	-	0.1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	21.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	698	29	10	379	3	92	9	81	29	8	33
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	7	0	3	0	2	11	0	0	0	0
Mvmt Flow	24	767	32	11	416	3	101	10	89	32	9	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	799	0	0	1276	1273	784	1321	1287	419
Stage 1	-	-	-	-	-	-	831	831	-	440	440	-
Stage 2	-	-	-	-	-	-	445	442	-	881	847	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.12	6.61	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.518	4.099	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1150	-	-	833	-	-	144	161	396	135	166	638
Stage 1	-	-	-	-	-	-	364	372	-	600	581	-
Stage 2	-	-	-	-	-	-	592	561	-	344	381	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1149	-	-	832	-	-	125	152	396	95	157	637
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	152	-	95	157	-
Stage 1	-	-	-	-	-	-	350	358	-	577	571	-
Stage 2	-	-	-	-	-	-	540	551	-	249	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.2	148.4	37.1
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	182	1149	-	-	832	-	-	104	637
HCM Lane V/C Ratio	1.099	0.021	-	-	0.013	-	-	0.391	0.057
HCM Control Delay (s)	148.4	8.2	0	-	9.4	0	-	60.3	11
HCM Lane LOS	F	A	A	-	A	A	-	F	B
HCM 95th %tile Q(veh)	9.9	0.1	-	-	0	-	-	1.6	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	790	3	4	420	1	3	0	36	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	3	0	25	5	0	0	0	0	0	0	0
Mvmt Flow	5	840	3	4	447	1	3	0	38	3	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	448	0	0	844	0	0	1312	1309	842	1328	1310	447
Stage 1	-	-	-	-	-	-	853	853	-	456	456	-
Stage 2	-	-	-	-	-	-	459	456	-	872	854	-
Critical Hdwy	4.1	-	-	4.35	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.425	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1123	-	-	702	-	-	137	161	367	133	160	616
Stage 1	-	-	-	-	-	-	357	378	-	588	572	-
Stage 2	-	-	-	-	-	-	586	572	-	348	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1123	-	-	702	-	-	134	158	367	118	157	616
Mov Cap-2 Maneuver	-	-	-	-	-	-	134	158	-	118	157	-
Stage 1	-	-	-	-	-	-	354	375	-	583	567	-
Stage 2	-	-	-	-	-	-	575	567	-	309	375	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	17.7	19.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	324	1123	-	-	702	-	-	256
HCM Lane V/C Ratio	0.128	0.005	-	-	0.006	-	-	0.037
HCM Control Delay (s)	17.7	8.2	0	-	10.2	0	-	19.6
HCM Lane LOS	C	A	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.1

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	623	0	219	0	0	0	355	207	208	27	606
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1787	0	1553	0	0	0	3471	1553	1687	1557	1599
Flt Permitted	0.950								0.470		
Satd. Flow (perm)	1787	0	1553	0	0	0	3471	1518	835	1557	1599
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			555					230			673
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	4%	0%	0%	0%	4%	4%	7%	22%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	692	0	243	0	0	0	394	230	231	30	673
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	40.0		40.0				60.0	60.0	30.0		
Total Split (%)	30.8%		30.8%				46.2%	46.2%	23.1%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	34.6		34.6				17.1	17.1	32.3	36.3	83.5
Actuated g/C Ratio	0.41		0.41				0.20	0.20	0.39	0.43	1.00
v/c Ratio	0.94		0.25				0.55	0.47	0.50	0.04	0.42
Control Delay	46.7		0.6				33.3	7.5	18.5	13.2	0.8
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	46.7		0.6				33.3	7.5	18.5	13.2	0.8
LOS	D		A				C	A	B	B	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							23.8			5.6	
Approach LOS							C			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 83.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	43	695	864	8	6	96
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	25	0	3
Mvmt Flow	45	732	909	8	6	101

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	909	0	-	0	1731	910
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	822	-
Critical Hdwy	4.1	-	-	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	757	-	-	-	98	331
Stage 1	-	-	-	-	396	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	756	-	-	-	92	331
Mov Cap-2 Maneuver	-	-	-	-	226	-
Stage 1	-	-	-	-	396	-
Stage 2	-	-	-	-	409	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	756	-	-	-	226	331
HCM Lane V/C Ratio	0.06	-	-	-	0.028	0.305
HCM Control Delay (s)	10.1	-	-	-	21.4	20.6
HCM Lane LOS	B	-	-	-	C	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	1.3

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	520	167	37	821	85	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	2	0	4	1	0
Mvmt Flow	542	174	39	855	89	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	716	0	1561	629
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	932	-
Critical Hdwy	-	-	4.1	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	-	-	2.2	-	3.509	3.3
Pot Cap-1 Maneuver	-	-	894	-	124	486
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	385	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	894	-	114	486
Mov Cap-2 Maneuver	-	-	-	-	114	-
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	353	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	99.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	134	-	-	894	-
HCM Lane V/C Ratio	0.824	-	-	0.043	-
HCM Control Delay (s)	99.6	-	-	9.2	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	5.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	507	68	50	816	31	41	4	28	10	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	140
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	1	2	4	1	0	0	0	0	0	0	0
Mvmt Flow	24	523	70	52	841	32	42	4	29	10	5	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	873	0	0	593	0	0	1568	1581	558	1582	1600	857
Stage 1	-	-	-	-	-	-	605	605	-	960	960	-
Stage 2	-	-	-	-	-	-	963	976	-	622	640	-
Critical Hdwy	4.1	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	781	-	-	973	-	-	91	110	533	89	107	360
Stage 1	-	-	-	-	-	-	488	491	-	311	338	-
Stage 2	-	-	-	-	-	-	310	332	-	478	473	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	781	-	-	973	-	-	74	94	533	72	91	360
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	94	-	72	91	-
Stage 1	-	-	-	-	-	-	466	468	-	297	303	-
Stage 2	-	-	-	-	-	-	260	297	-	428	451	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.5	86.5	38.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	112	781	-	-	973	-	-	77	360
HCM Lane V/C Ratio	0.672	0.03	-	-	0.053	-	-	0.201	0.046
HCM Control Delay (s)	86.5	9.8	0	-	8.9	0	-	63.1	15.5
HCM Lane LOS	F	A	A	-	A	A	-	F	C
HCM 95th %tile Q(veh)	3.5	0.1	-	-	0.2	-	-	0.7	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	533	0	24	910	7	9	0	19	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	3	0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	1	0	8	1	0	0	0	5	0	0	0
Mvmt Flow	1	555	0	25	948	7	9	0	20	0	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	958	0	0	558	0	0	1567	1568	558	1575	1565	955
Stage 1	-	-	-	-	-	-	560	560	-	1005	1005	-
Stage 2	-	-	-	-	-	-	1007	1008	-	570	560	-
Critical Hdwy	4.1	-	-	4.18	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.272	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	726	-	-	983	-	-	91	112	523	90	113	316
Stage 1	-	-	-	-	-	-	516	514	-	294	322	-
Stage 2	-	-	-	-	-	-	293	321	-	510	514	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	726	-	-	983	-	-	85	105	522	83	106	315
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	105	-	83	106	-
Stage 1	-	-	-	-	-	-	514	512	-	293	304	-
Stage 2	-	-	-	-	-	-	273	303	-	490	512	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	26.4	21.3
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	197	726	-	-	983	-	-	226
HCM Lane V/C Ratio	0.148	0.001	-	-	0.025	-	-	0.023
HCM Control Delay (s)	26.4	10	0	-	8.8	0	-	21.3
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.1

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	278	0	185	0	0	0	655	648	327	35	520
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1770	0	1599	0	0	0	3574	1599	1787	1900	1599
Flt Permitted	0.950								0.311		
Satd. Flow (perm)	1770	0	1599	0	0	0	3574	1565	585	1900	1599
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			428					668			536
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								1			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	1%	1%	1%	0%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	287	0	191	0	0	0	675	668	337	36	536
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	40.0		40.0				60.0	60.0	30.0		
Total Split (%)	30.8%		30.8%				46.2%	46.2%	23.1%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	20.5		20.5				29.7	29.7	46.9	51.1	84.9
Actuated g/C Ratio	0.24		0.24				0.35	0.35	0.55	0.60	1.00
v/c Ratio	0.67		0.27				0.54	0.68	0.62	0.03	0.34
Control Delay	39.8		0.9				24.6	5.9	13.9	7.8	0.6
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	39.8		0.9				24.6	5.9	13.9	7.8	0.6
LOS	D		A				C	A	B	A	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							15.3			5.8	
Approach LOS							B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 84.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 68.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Appendix F

FDOT Generalized Table

TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's **Urbanized Areas**[1]

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Lanes	B	C	D	E
2	2,260	3,020	3,660	3,940
3	3,360	4,580	5,500	6,080
4	4,500	6,080	7,320	8,220
5	5,660	7,680	9,220	10,360
6	7,900	10,320	12,060	12,500

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	420	840	1,190	1,640
2	Divided	1,810	2,560	3,240	3,590
3	Divided	2,720	3,840	4,860	5,380

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sm/los/default.shtm

Appendix G

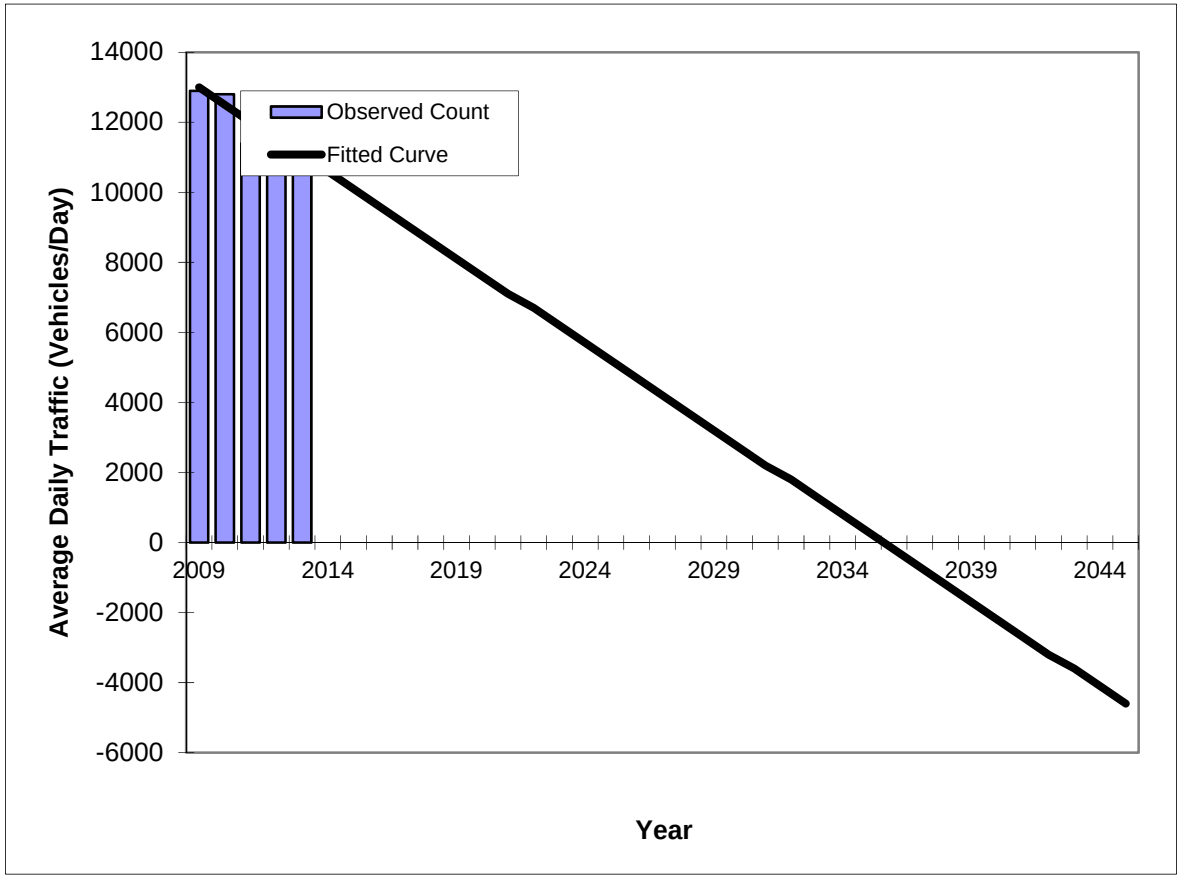
Trends Analysis Sheets

Traffic Trends - V3.0

MALABAR RD. --

FIN#	**430136-1**
Location	**3**

County:	Brevard (70)
Station #:	700127
Highway:	MALABAR RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2009	12900	13000
2010	12800	12500
2011	11400	12000
2012	12500	11600
2013	10600	11100
2025 Opening Year Trend		
2025	N/A	5200
2035 Mid-Year Trend		
2035	N/A	300
2045 Design Year Trend		
2045	N/A	-4600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	-490
Trend R-squared:	59.85%
Trend Annual Historic Growth Rate:	-3.65%
Trend Growth Rate (2013 to Design Year):	-4.42%
Printed:	2-Mar-15

Straight Line Growth Option

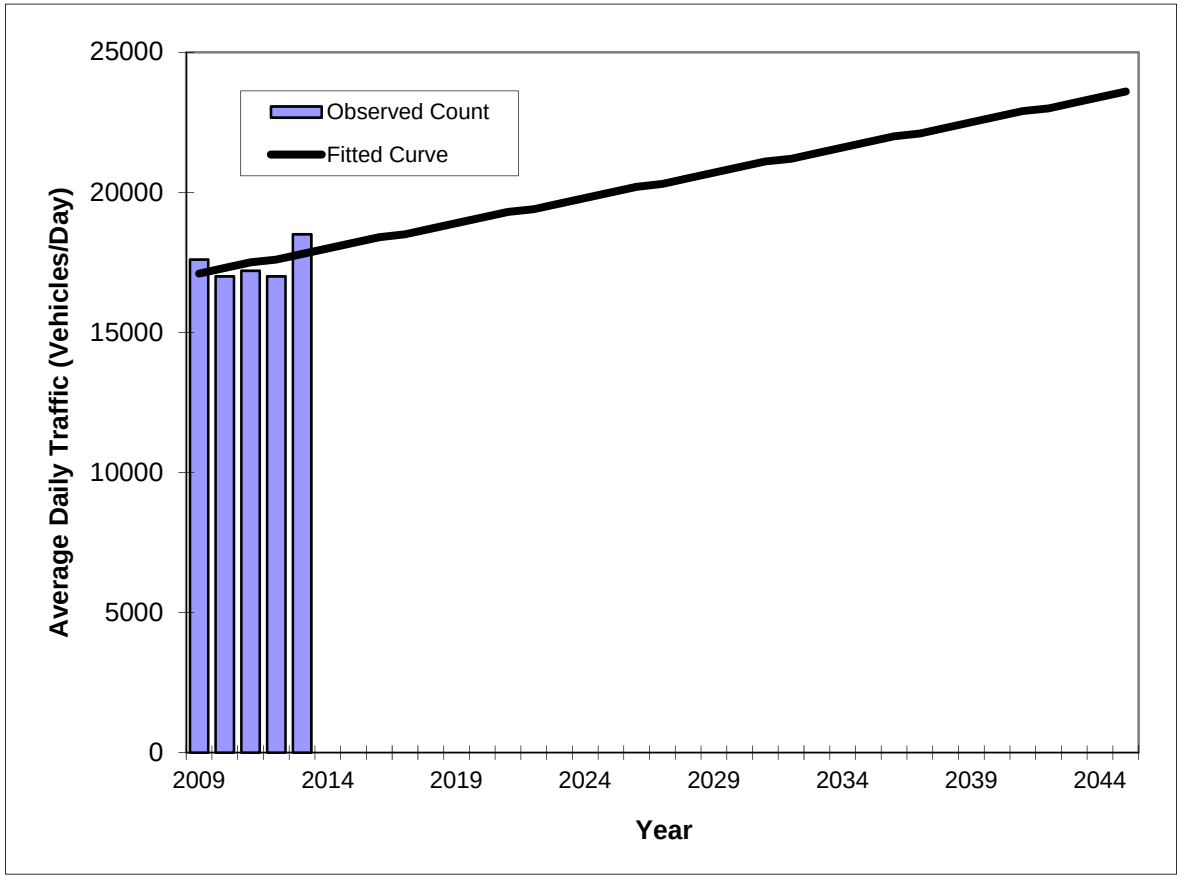
*Axle-Adjusted

Traffic Trends - V3.0

MALABAR RD. --

FIN#	**430136-1**
Location	**2**

County:	Brevard (70)
Station #:	700379
Highway:	MALABAR RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2009	17600	17100
2010	17000	17300
2011	17200	17500
2012	17000	17600
2013	18500	17800
2025 Opening Year Trend		
2025	N/A	20000
2035 Mid-Year Trend		
2035	N/A	21800
2045 Design Year Trend		
2045	N/A	23600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	180
Trend R-squared:	20.35%
Trend Annual Historic Growth Rate:	1.02%
Trend Growth Rate (2013 to Design Year):	1.02%
Printed:	2-Mar-15

Straight Line Growth Option

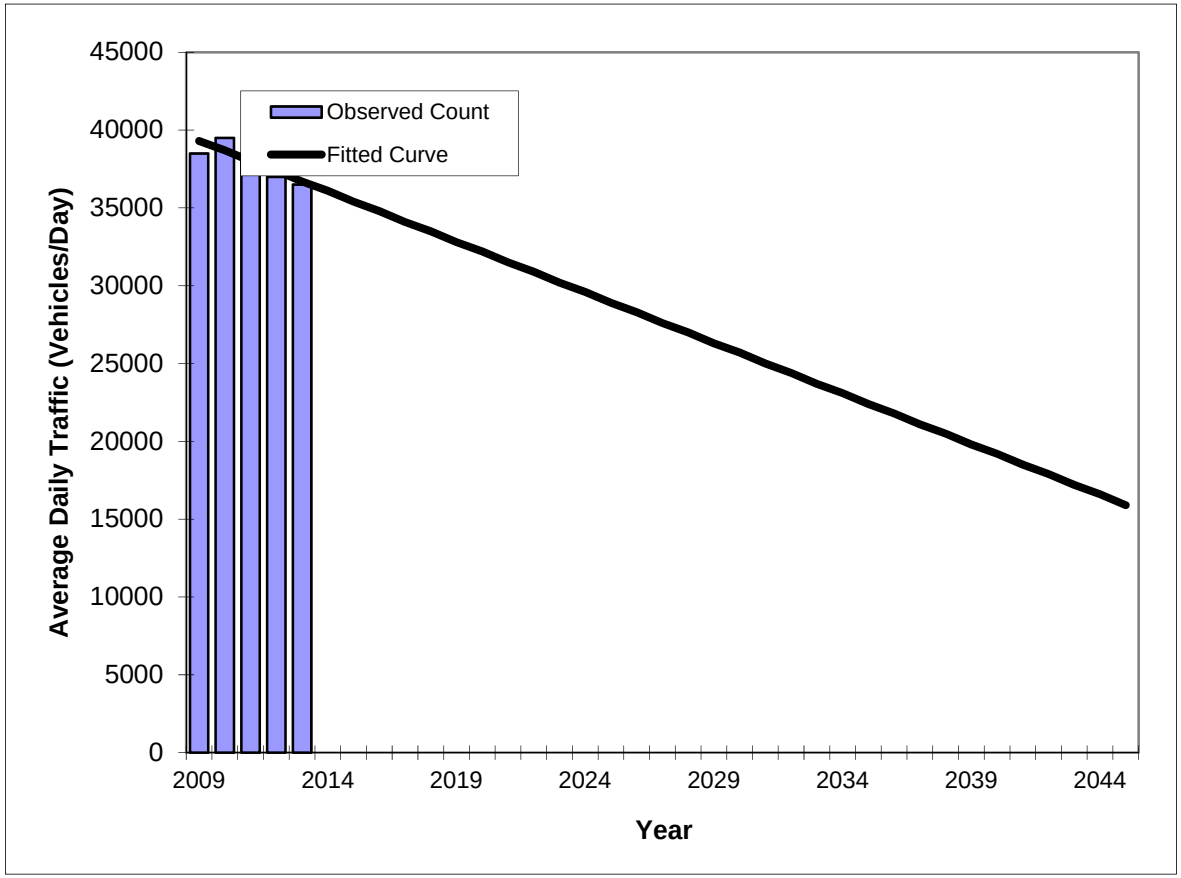
*Axle-Adjusted

Traffic Trends - V3.0

MALABAR RD. --

FIN#	**430136-1**
Location	**1**

County:	Brevard (70)
Station #:	700427
Highway:	MALABAR RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2009	38500	39300
2010	39500	38700
2011	38500	38000
2012	37000	37400
2013	36500	36700
2025 Opening Year Trend		
2025	N/A	28900
2035 Mid-Year Trend		
2035	N/A	22400
2045 Design Year Trend		
2045	N/A	15900
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	-650
Trend R-squared:	70.42%
Trend Annual Historic Growth Rate:	-1.65%
Trend Growth Rate (2013 to Design Year):	-1.77%
Printed:	2-Mar-15

Straight Line Growth Option

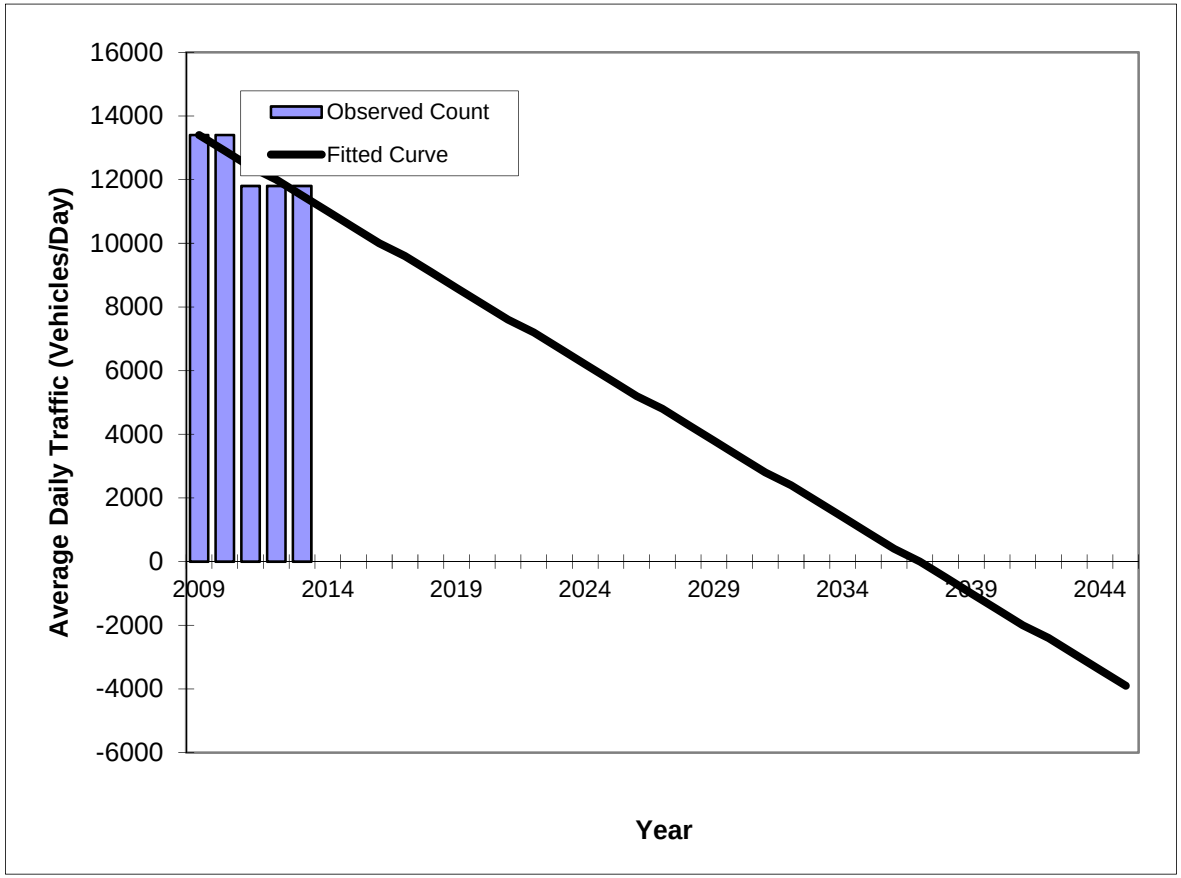
*Axle-Adjusted

Traffic Trends - V3.0

MALABAR RD. --

FIN#	**430136-1**
Location	**4**

County:	Brevard (70)
Station #:	700127
Highway:	MALABAR RD.



Year	Traffic (ADT/AADT) Count*	Trend**
2009	13400	13400
2010	13400	12900
2011	11800	12400
2012	11800	12000
2013	11800	11500
2025 Opening Year Trend		
2025	N/A	5700
2035 Mid-Year Trend		
2035	N/A	900
2045 Design Year Trend		
2045	N/A	-3900
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	-480
Trend R-squared:	75.00%
Trend Annual Historic Growth Rate:	-3.54%
Trend Growth Rate (2013 to Design Year):	-4.18%
Printed:	2-Mar-15

Straight Line Growth Option

*Axle-Adjusted

Appendix H

BEBR Population Projections for Brevard County

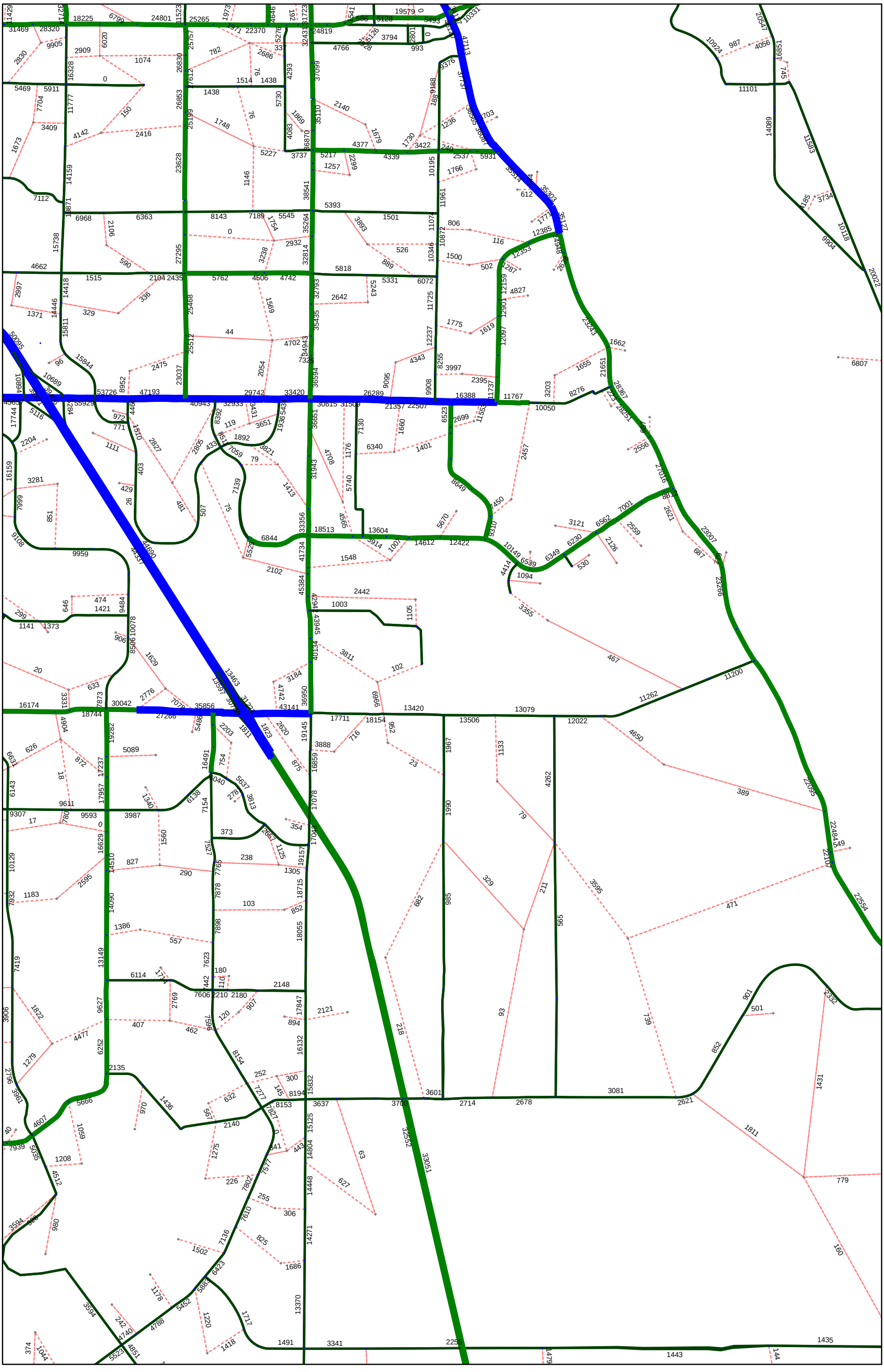
Projections of Florida Population by County, 2015–2040, with Estimates for 2013

County and State	Estimates April 1, 2013	Projections, April 1 2015	2020	2025	2030	2035	2040
ALACHUA	248,002						
Low		237,400	241,800	244,800	245,800	244,900	242,400
Medium		252,600	265,700	278,200	289,200	298,600	306,800
High		267,700	289,600	311,500	332,500	352,400	371,300
BAKER	26,881						
Low		26,000	26,900	27,700	28,200	28,400	28,400
Medium		27,600	29,600	31,500	33,200	34,600	36,000
High		29,300	32,300	35,200	38,100	40,900	43,500
BAY	169,866						
Low		162,900	166,400	168,700	170,000	170,200	168,800
Medium		173,300	182,800	191,700	200,000	207,600	213,700
High		183,700	199,300	214,800	230,000	245,000	258,500
BRADFORD	27,217						
Low		25,900	25,800	25,500	25,200	24,700	24,000
Medium		27,500	28,300	29,000	29,600	30,100	30,400
High		29,200	30,900	32,500	34,000	35,500	36,800
BREVARD	548,424						
Low		525,000	536,300	542,500	543,800	541,200	535,200
Medium		558,500	589,300	616,400	639,800	660,000	677,500
High		592,000	642,400	690,400	735,700	778,800	819,700
BROWARD	1,784,715						
Low		1,694,800	1,688,900	1,673,900	1,655,500	1,632,100	1,603,700
Medium		1,803,000	1,855,900	1,902,200	1,947,700	1,990,300	2,029,900
High		1,911,200	2,023,000	2,130,500	2,239,800	2,348,600	2,456,200
CALHOUN	14,621						
Low		13,600	13,500	13,300	13,100	12,700	12,200
Medium		14,800	15,400	15,900	16,300	16,700	17,000
High		16,000	17,200	18,400	19,600	20,700	21,800
CHARLOTTE	163,679						
Low		156,300	158,500	159,200	158,900	158,100	156,200
Medium		166,300	174,100	181,000	187,000	192,800	197,700
High		176,300	189,800	202,700	215,000	227,500	239,300
CITRUS	140,519						
Low		135,200	139,300	142,500	144,300	144,800	144,300
Medium		143,800	153,100	161,900	169,800	176,600	182,700
High		152,400	166,900	181,300	195,300	208,400	221,000
CLAY	192,843						
Low		188,600	200,400	209,100	215,000	218,200	217,900
Medium		200,700	222,700	243,200	262,200	279,700	294,500
High		212,700	244,900	277,200	309,400	341,300	371,000
COLLIER	333,663						
Low		324,400	344,900	362,000	375,600	385,900	389,100
Medium		345,100	379,100	411,400	441,900	470,600	492,500
High		365,800	413,200	460,700	508,200	555,300	596,000
COLUMBIA	67,489						
Low		64,800	66,300	67,500	68,100	68,000	67,600
Medium		68,900	72,900	76,700	80,100	83,000	85,500
High		73,000	79,400	85,900	92,100	97,900	103,500
DE SOTO	34,367						
Low		32,400	31,900	31,100	30,200	29,500	28,600
Medium		34,500	35,000	35,400	35,600	36,000	36,300
High		36,600	38,200	39,600	40,900	42,400	43,900
DIXIE	16,263						
Low		15,300	15,500	15,500	15,400	15,200	14,800
Medium		16,600	17,600	18,500	19,300	20,000	20,600
High		17,900	19,700	21,400	23,100	24,800	26,300

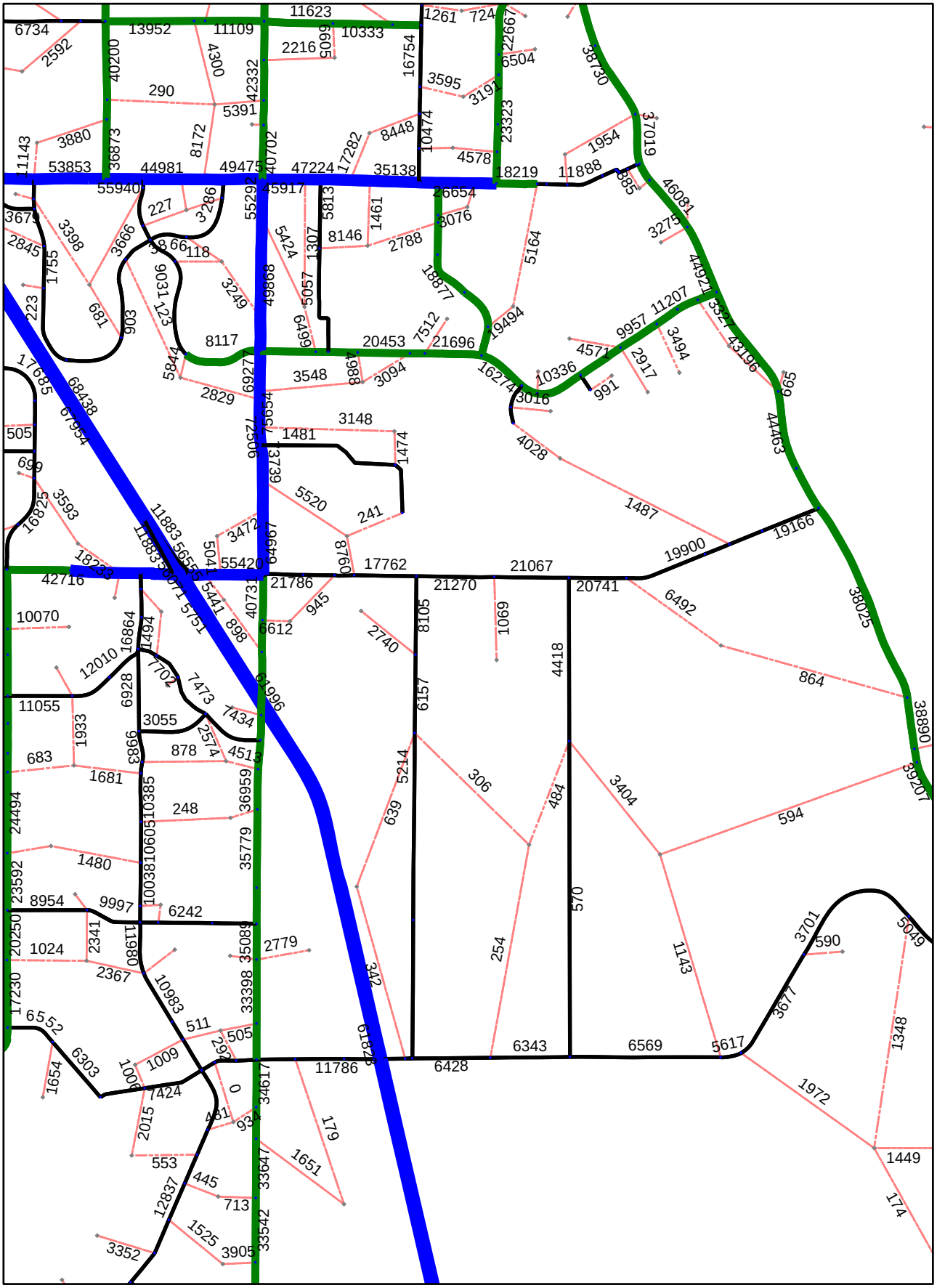
Appendix I

Year 2035 Model Plots for No-Build and Build Alternatives

Year 2011 CFRPM5.0 - SR 514 Study Model Validation - Total Traffic PSWADT (After Validation)



Year 2035 CFRPM5.0 - SR 514 PDE - Total Traffic PSWADT (No-Build Scenario)

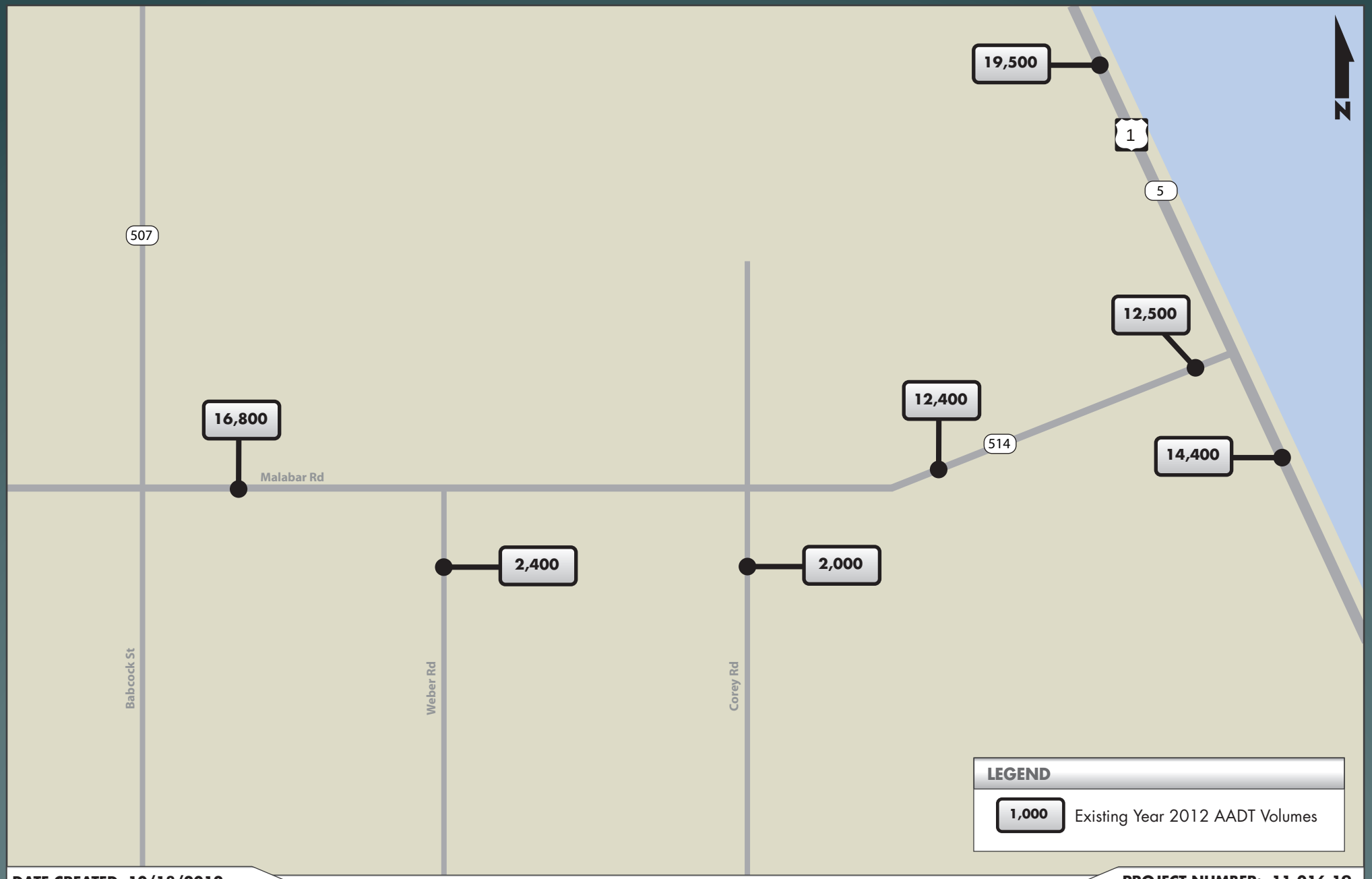


Year 2035 CFRPM5.0 - SR 514 PDE - Total Traffic PSWADT (Build Scenario)

Year 2035 CFRPM5.0 - SR 514 PDE - Total Traffic PSWADT (Build Scenario)

Appendix J

Year 2038 AADTs from previous SR 514 Design Traffic Technical Memorandum



DATE CREATED: 10/18/2012

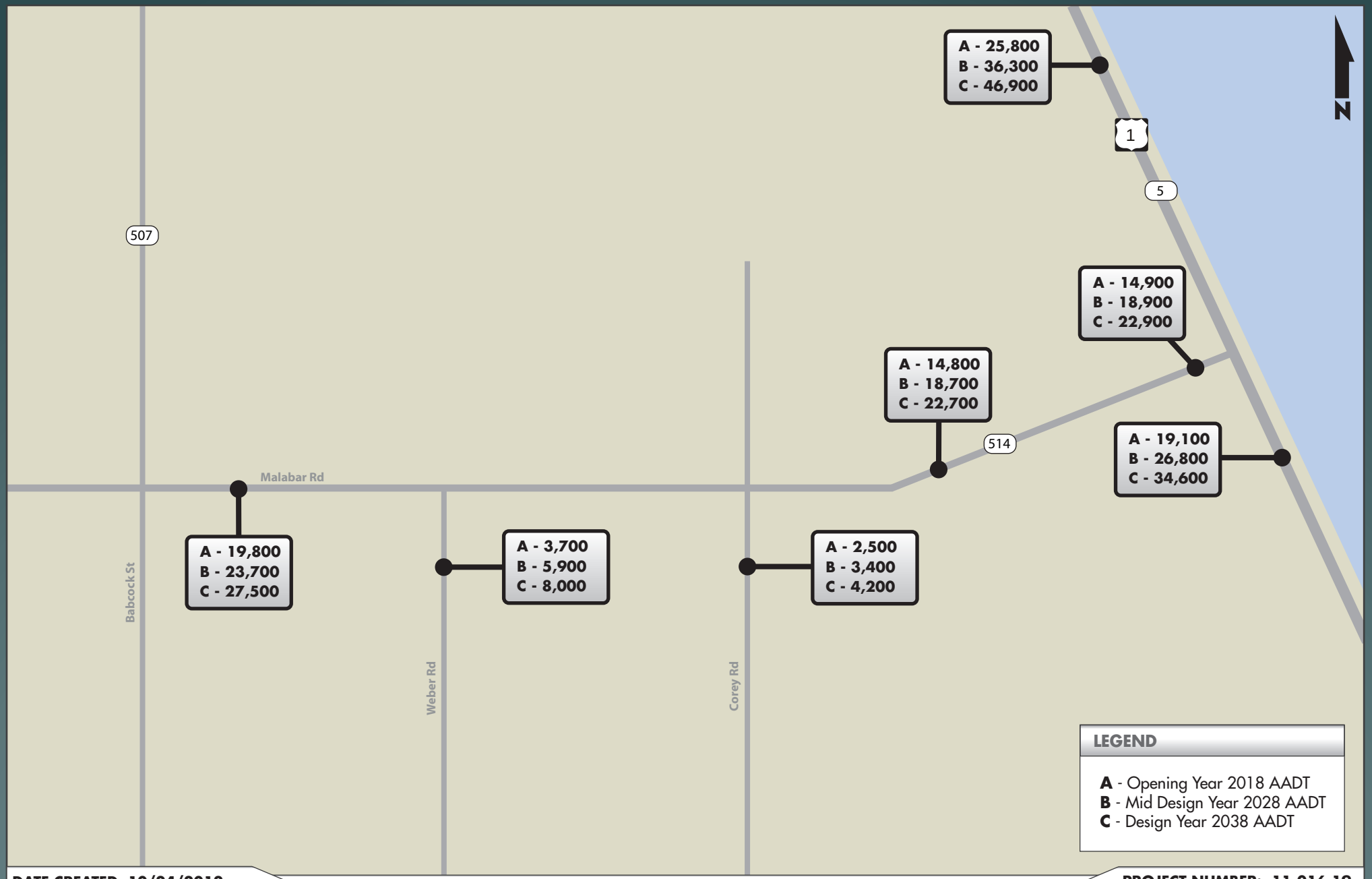
PROJECT NUMBER: 11-016.19

GMB ENGINEERS & PLANNERS, INC.
2602 East Livingston Street
Orlando, Florida 32803

SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 5
Existing Year 2012 AADT Volumes



DATE CREATED: 10/24/2012 **PROJECT NUMBER: 11-016.19**

GMB ENGINEERS & PLANNERS, INC.
2602 East Livingston Street
Orlando, Florida 32803

SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE ES-1
Future AADT Volumes
Build Scenario

Appendix K

TURNS 5 Sheets

TURNS5 ANALYSIS SHEET - INPUT

2025 NB

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ◉ EB, WB, and SB
- ○ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	34.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	***TOTAL***
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	***TOTAL***
2015	18500	16400	2500	0	37400
2025	22500	19400	2500	0	44400

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	11.1%	98
(EB THRU)	*West-to-East*	88.9%	787
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	98.4%	635
(WB RT)	*East-to-North*	1.6%	10
(SB LT)	*North-to-East*	7.0%	3
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	93.0%	40
(NB LT)	*South-to-West*	0.0%	0
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 2.00

First Guess Turning % Option Used
Existing Turning Movement Counts

Existing Year AADTs

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

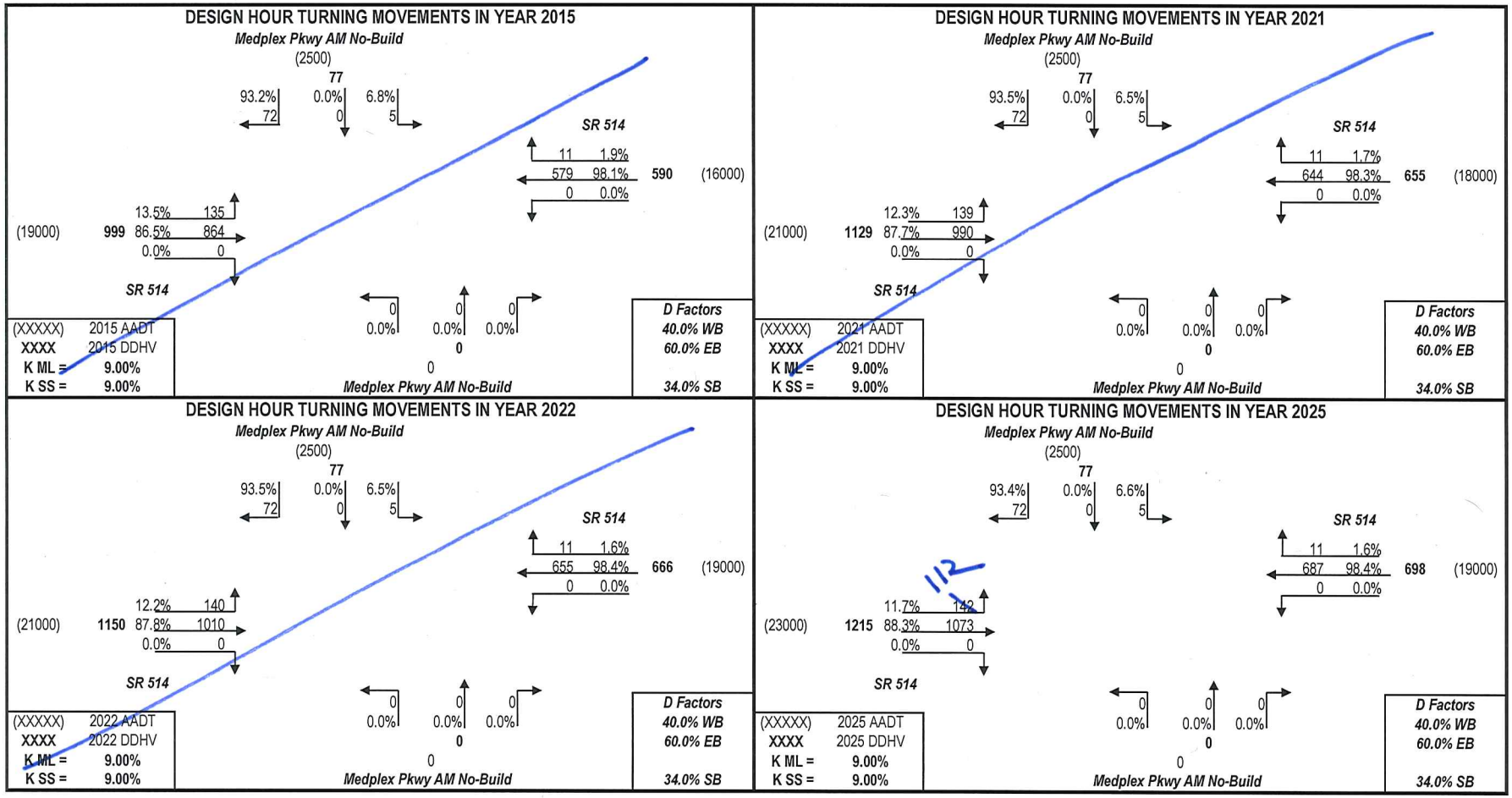
Existing Turning Movement Counts

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ◉ EB, WB, and SB
- ○ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	Mainline
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	66.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2015	18500	16400	2500	0	37400
2025	22500	19400	2500	0	44400

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	West-to-North	5.8%	43
(EB THRU)	West-to-East	94.2%	695
(EB RT)	West-to-South	0.0%	0
(WB LT)	East-to-South	0.0%	0
(WB THRU)	East-to-West	99.1%	864
(WB RT)	East-to-North	0.9%	8
(SB LT)	North-to-East	5.9%	6
(SB THRU)	North-to-South	0.0%	0
(SB RT)	North-to-West	94.1%	96
(NB LT)	South-to-West	0.0%	0
(NB THRU)	South-to-North	0.0%	0
(NB RT)	South-to-East	0.0%	0

Desired Closure: 2.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

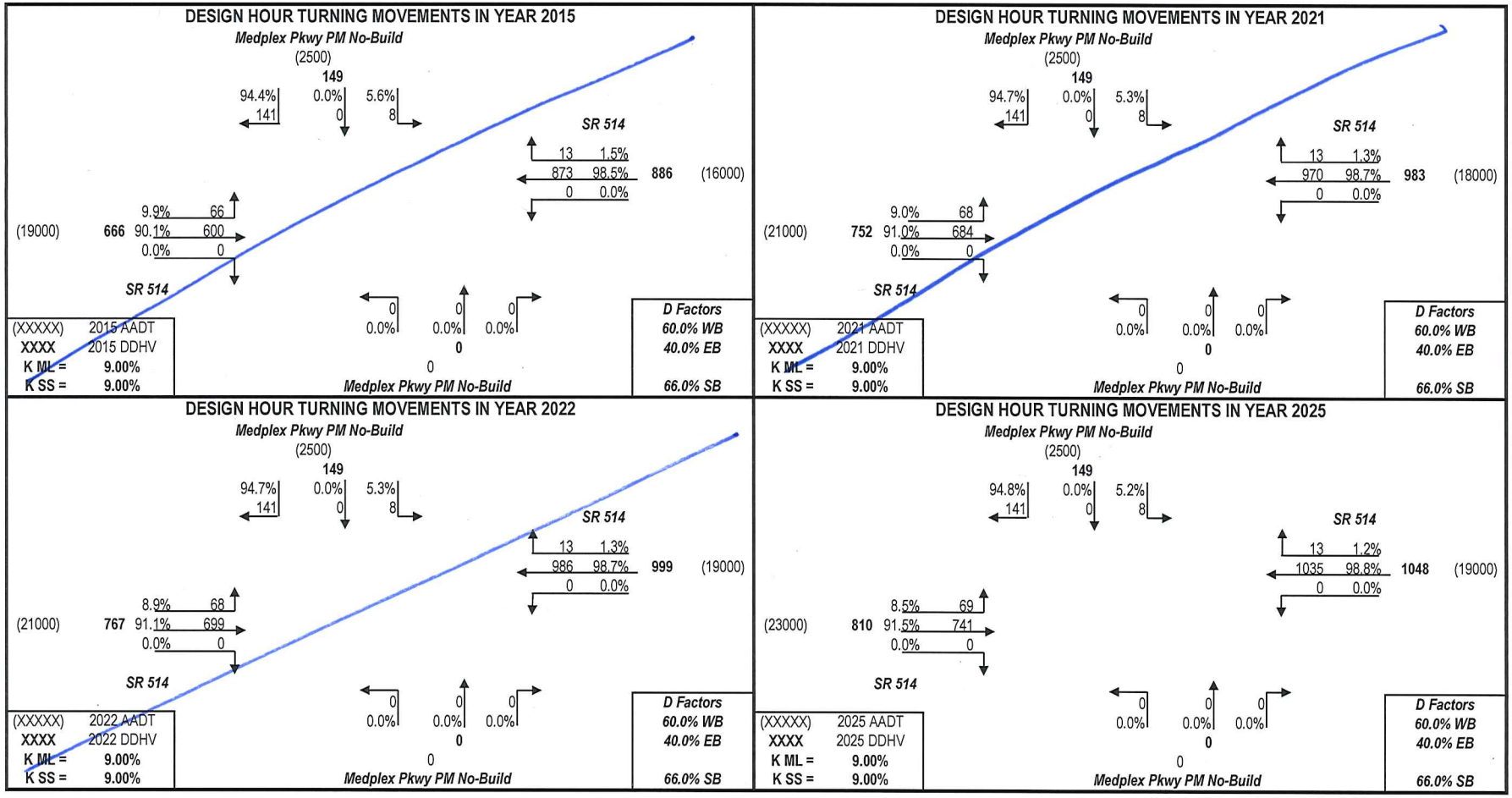
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- EB, WB, and SB
- EB, WB, and NB
- EB, SB, and NB
- WB, SB, and NB

Analyst:	-
Date:	11-Mar-15
Highway:	SR 514
Intersection:	Weber Road AM No-Build
Project:	SR514 DTTM Update
County:	Brevard

Enter Yes or No

Is the Mainline Oriented North/South? — Yes / No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	61.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: Yes / No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: Linear / Exponential / Decaying

Side Street Growth Function: Linear / Exponential / Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2025	19400	17100	0	4800	41300

		1st Guess Turning %'s for AADT Balancing	**Actual/Counted Traffic for 2015**
(EB LT)	*West-to-North*	0.0%	0
(EB THRU)	*West-to-East*	91.8%	693
(EB RT)	*West-to-South*	8.2%	62
(WB LT)	*East-to-South*	2.4%	13
(WB THRU)	*East-to-West*	97.6%	530
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	0.0%	0
(NB LT)	*South-to-West*	84.3%	145
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	15.7%	27

Desired Closure: 1.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

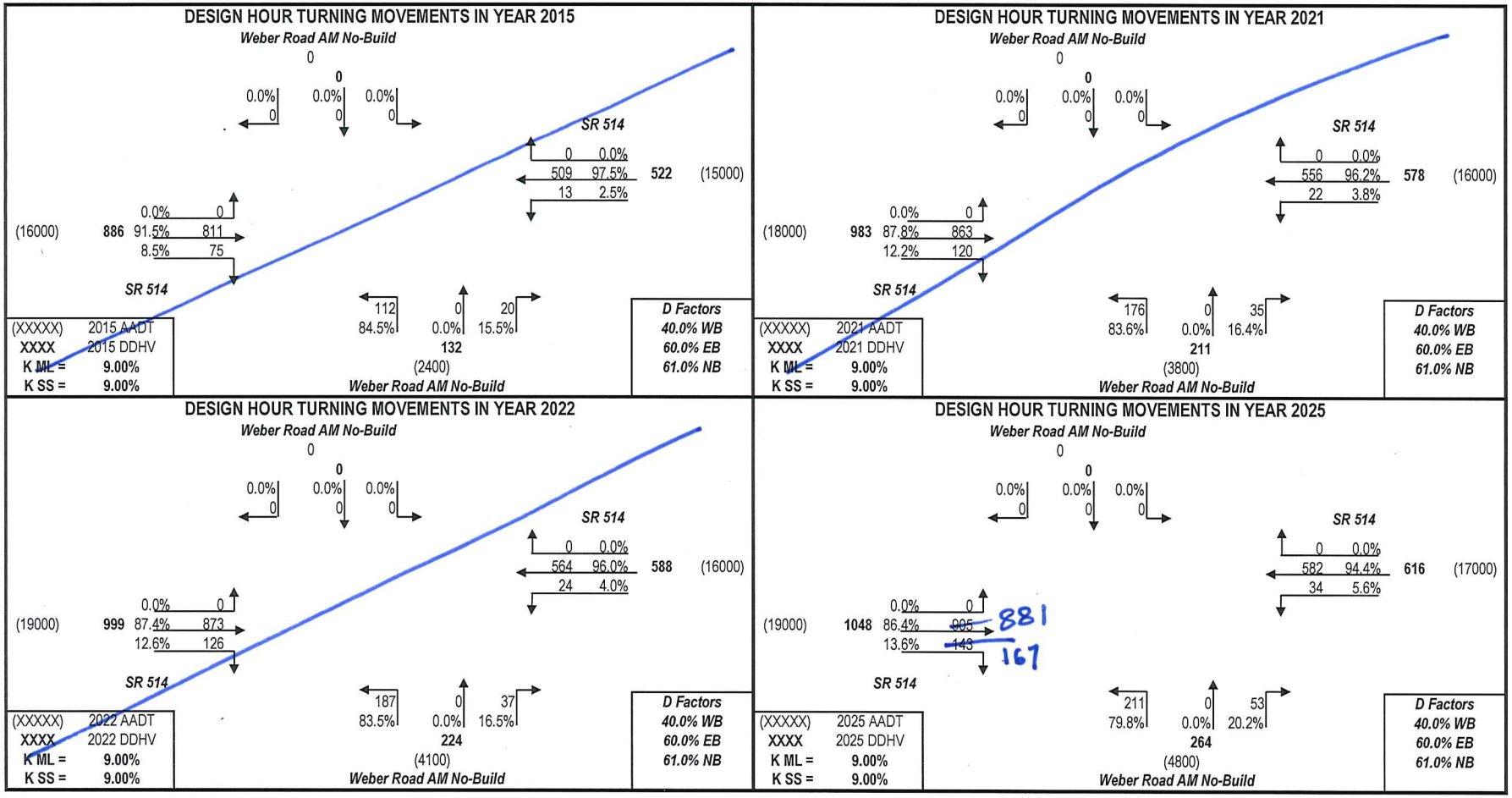
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Weber Road PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ○ EB, WB, and SB
- ◉ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	
Mainline	
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
Side street	
Northbound (NB)	39.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2025	19400	17100	0	4800	41300

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	0.0%	0	Existing Year AADTs
(EB THRU)	*West-to-East*	75.7%	520	
(EB RT)	*West-to-South*	24.3%	167	
(WB LT)	*East-to-South*	4.3%	37	
(WB THRU)	*East-to-West*	95.7%	821	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	Existing Turning Movement Counts
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	0.0%	0	
(NB LT)	*South-to-West*	80.2%	85	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	19.8%	21	

Desired Closure: 1.00

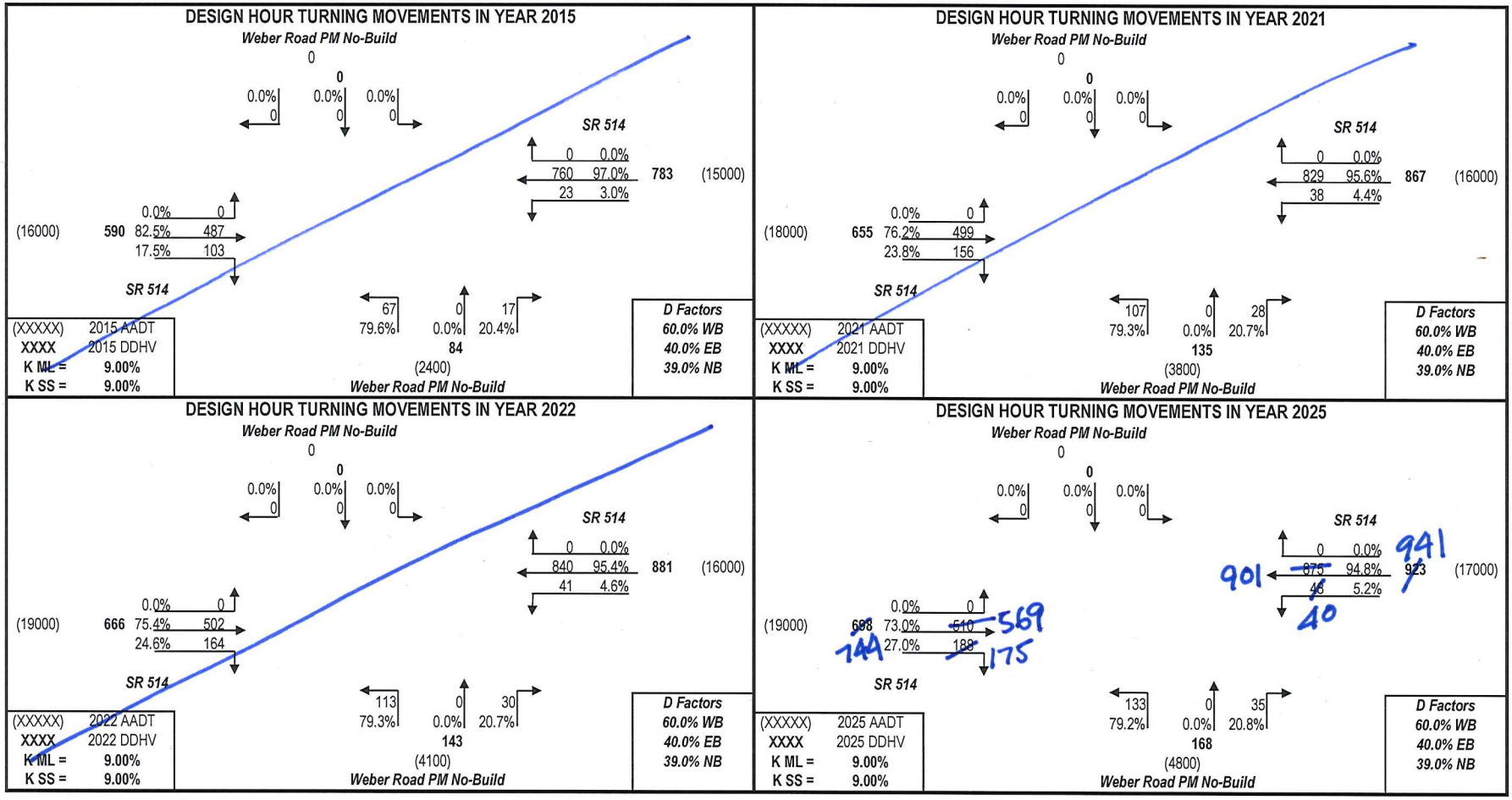
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Corey Road AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
(●) Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	Mainline
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	63.0%
Southbound (SB)	37.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
(●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025	0.00%	0.00%
Mid	2035		
Design	2045		

Mainline Growth Function
(●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function
(●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2015	14500	12500	700	2200	29900
2025	17100	15000	1000	3200	36300

First Guess Turning % Option Used
Existing Turning Movement Counts

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	West-to-North	2.9%	22	Existing Year AADTs
(EB THRU)	West-to-East	93.2%	698	
(EB RT)	West-to-South	3.9%	29	
(WB LT)	East-to-South	2.6%	10	Existing Turning Movement Counts
(WB THRU)	East-to-West	96.6%	379	
(WB RT)	East-to-North	0.8%	3	
(SB LT)	North-to-East	41.4%	29	
(SB THRU)	North-to-South	11.5%	8	
(SB RT)	North-to-West	47.1%	33	
(NB LT)	South-to-West	50.5%	92	FSUTMS Model Year AADTs
(NB THRU)	South-to-North	5.0%	9	
(NB RT)	South-to-East	44.5%	81	

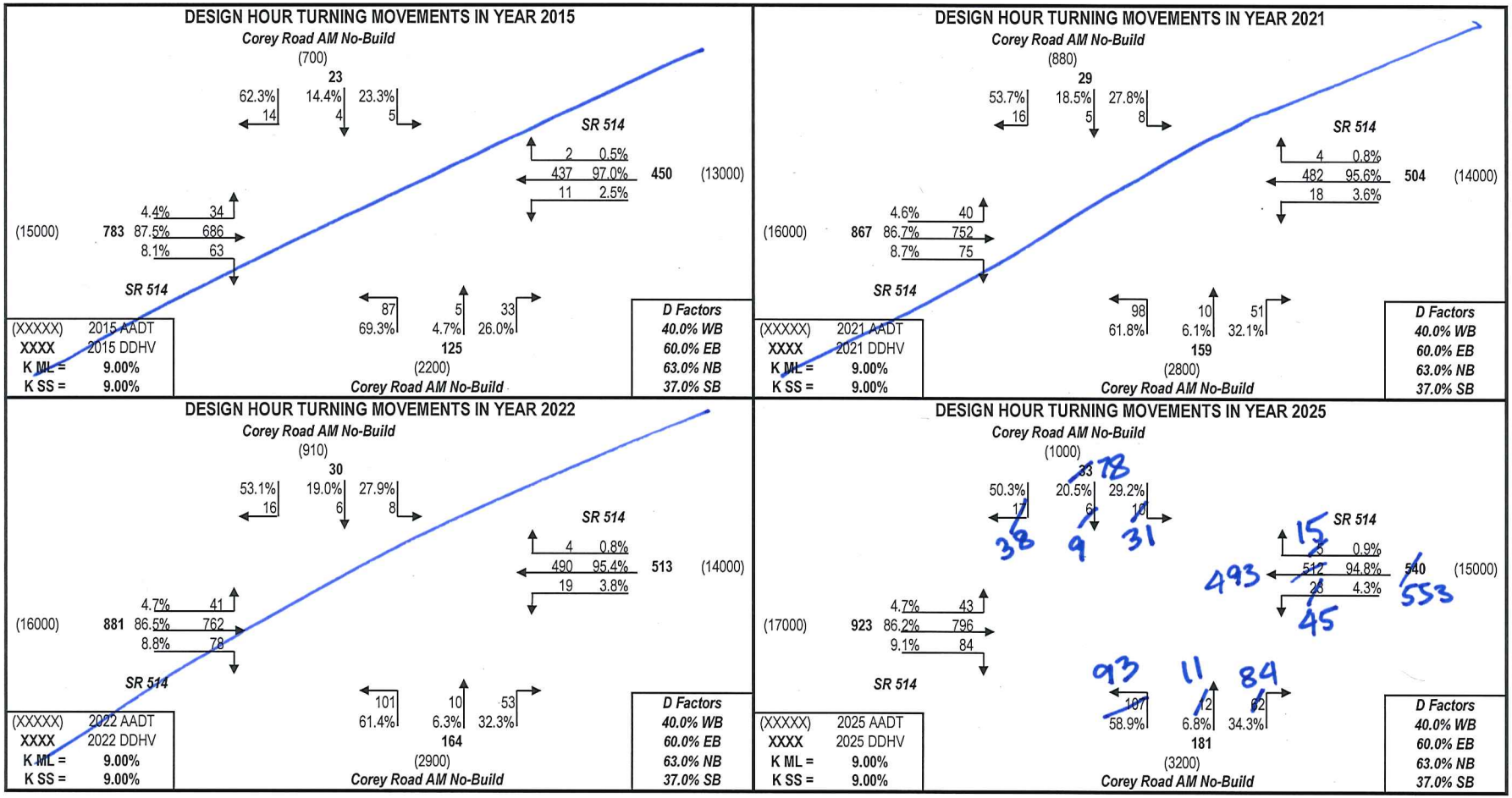
Desired Closure: 0.50

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Corey Road PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?: ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	37.0%
Southbound (SB)	63.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	14500	12500	700	2200	29900
2025	17100	15000	1000	3200	36300

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	3.8%	23
(EB THRU)	*West-to-East*	84.8%	507
(EB RT)	*West-to-South*	11.4%	68
(WB LT)	*East-to-South*	5.6%	50
(WB THRU)	*East-to-West*	90.9%	816
(WB RT)	*East-to-North*	3.5%	31
(SB LT)	*North-to-East*	32.3%	10
(SB THRU)	*North-to-South*	16.1%	5
(SB RT)	*North-to-West*	51.6%	16
(NB LT)	*South-to-West*	56.2%	41
(NB THRU)	*South-to-North*	5.4%	4
(NB RT)	*South-to-East*	38.4%	28

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

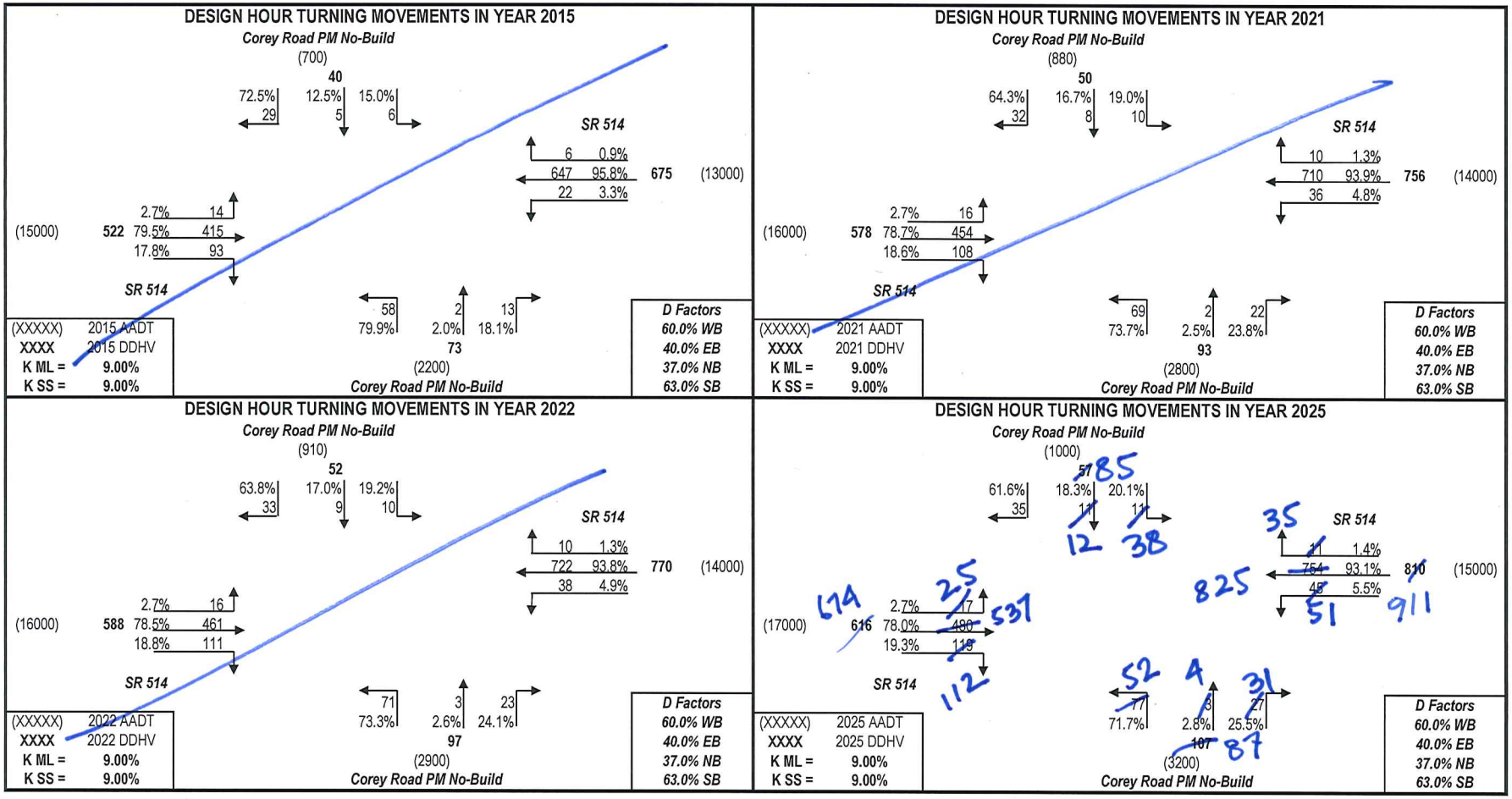
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 10-Mar-15
Highway: SR 514
Intersection: Marie Street AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
(●) Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	60.0%
Southbound (SB)	40.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
(●) Yes
( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025	0.00%	0.00%
Mid	2035		
Design	2045		

Mainline Growth Function
(●) Linear
( ) Exponential
( ) Decaying

Side Street Growth Function
(●) Linear
( ) Exponential
( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	12500	13000	200	600	26300
2025	15000	15400	200	700	31300

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	0.6%	5	Existing Year AADTs
(EB THRU)	*West-to-East*	99.0%	790	
(EB RT)	*West-to-South*	0.4%	3	
(WB LT)	*East-to-South*	0.9%	4	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	98.9%	420	
(WB RT)	*East-to-North*	0.2%	1	
(SB LT)	*North-to-East*	33.3%	3	
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	66.7%	6	
(NB LT)	*South-to-West*	7.7%	3	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	92.3%	36	

Desired Closure: 0.50

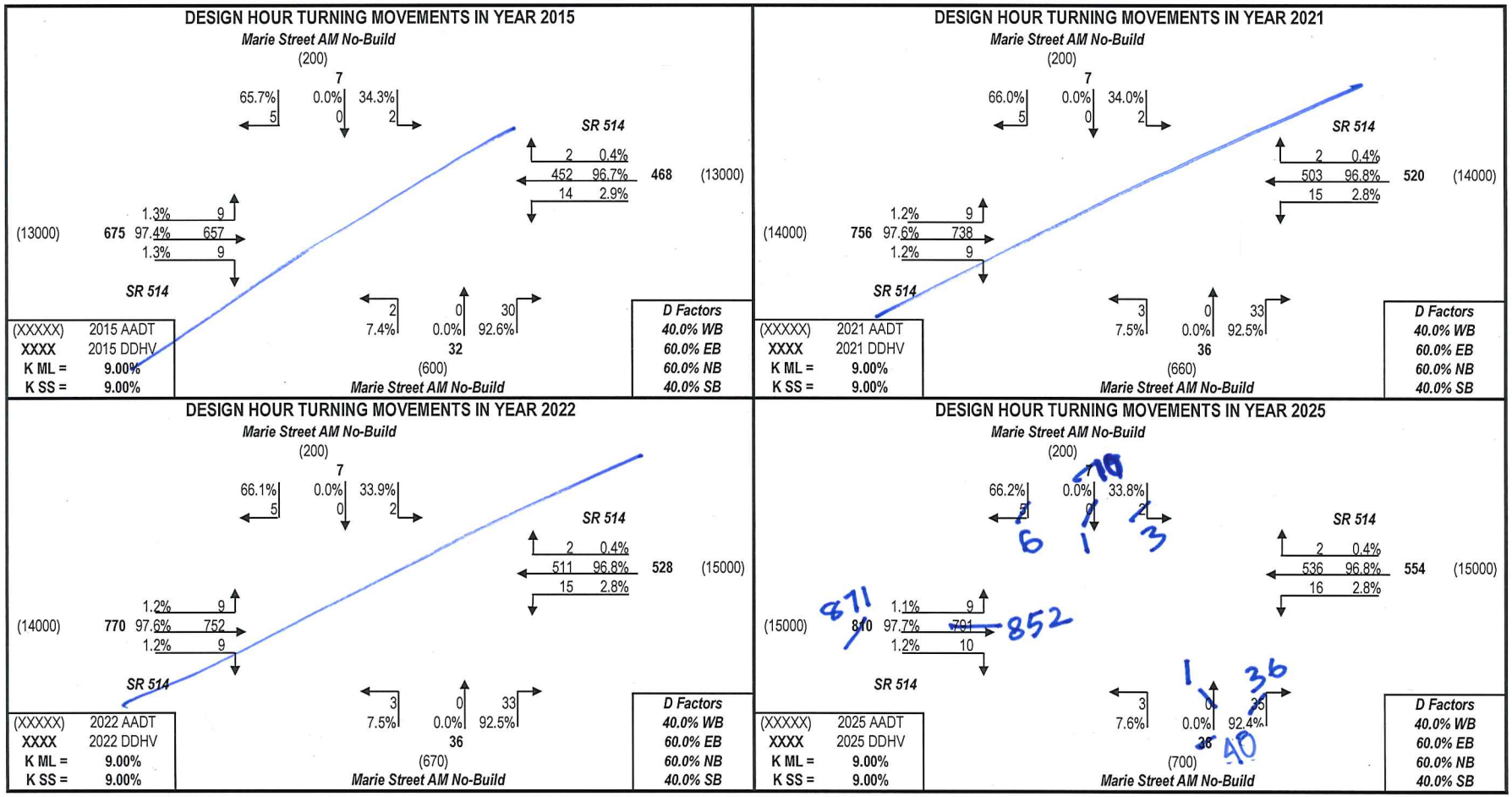
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Marie Street PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	
Mainline	
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
Side street	
Northbound (NB)	40.0%
Southbound (SB)	60.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	12500	13000	200	600	26300
2025	15000	15400	200	700	31300

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	0.2%	1	Existing Year AADTs
(EB THRU)	*West-to-East*	99.8%	533	
(EB RT)	*West-to-South*	0.0%	0	
(WB LT)	*East-to-South*	2.6%	24	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	96.7%	910	
(WB RT)	*East-to-North*	0.7%	7	
(SB LT)	*North-to-East*	0.0%	0	
(SB THRU)	*North-to-South*	20.0%	1	
(SB RT)	*North-to-West*	80.0%	4	
(NB LT)	*South-to-West*	32.1%	9	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	67.9%	19	

Desired Closure: 0.50

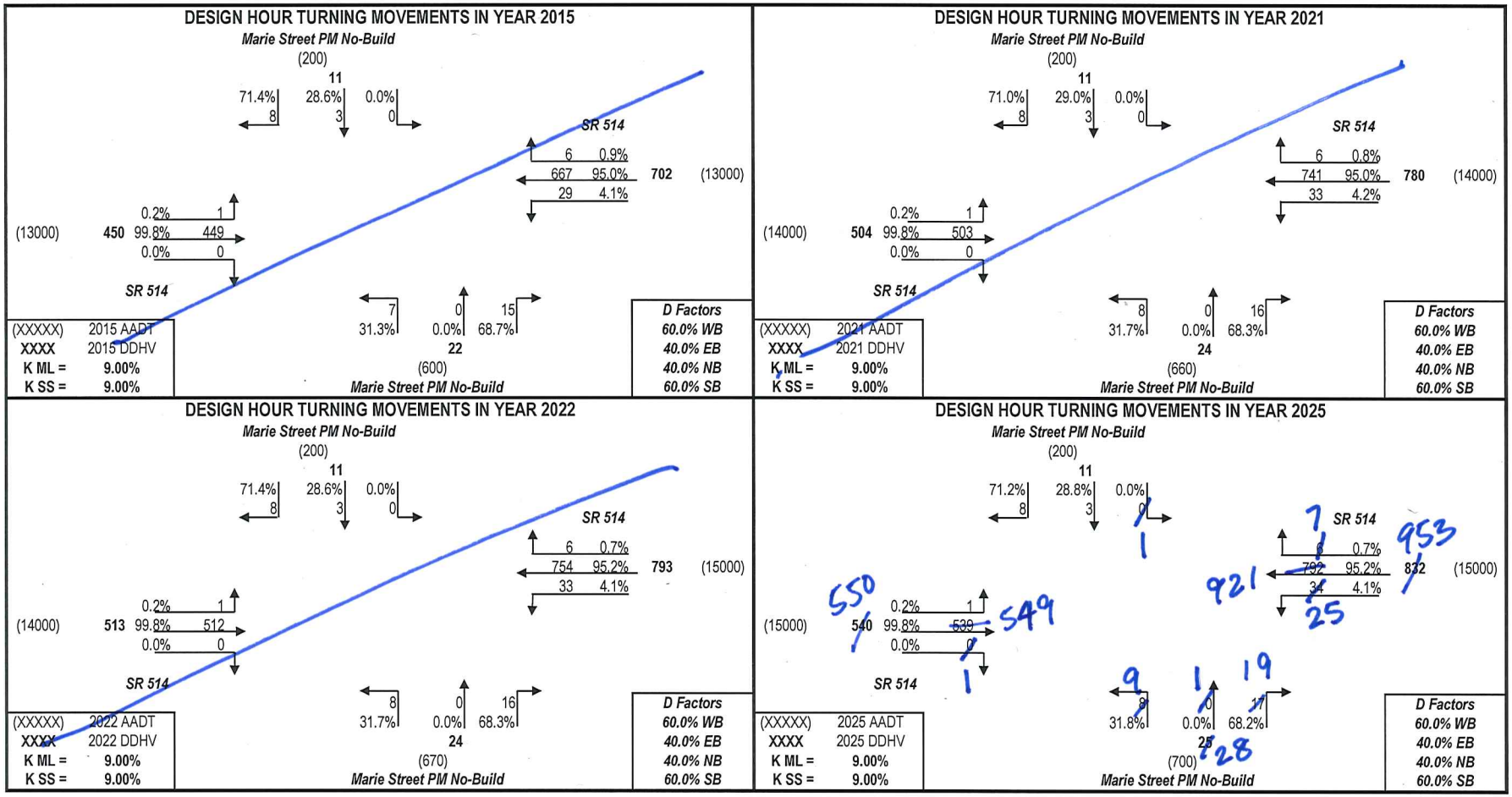
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: US 1 AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ○ Yes ◉ No

K Factors	Mainline
	9.00%
Side street	
	9.00%

D Factors	*Mainline*
Westbound (WB)	0.0%
Eastbound (EB)	60.0%
Side street	
Northbound (NB)	54.0%
Southbound (SB)	46.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: ◉ Yes ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	13000	0	20400	14200	47600
2025	15400	0	33600	23400	72400

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	74.0%	623	Existing Year AADTs
(EB THRU)	*West-to-East*	0.0%	0	
(EB RT)	*West-to-South*	26.0%	219	
(WB LT)	*East-to-South*	0.0%	0	
(WB THRU)	*East-to-West*	0.0%	0	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	Existing Turning Movement Counts
(SB THRU)	*North-to-South*	63.2%	355	
(SB RT)	*North-to-West*	36.8%	207	
(NB LT)	*South-to-West*	24.7%	208	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	75.3%	633	
(NB RT)	*South-to-East*	0.0%	0	

Desired Closure: 0.50

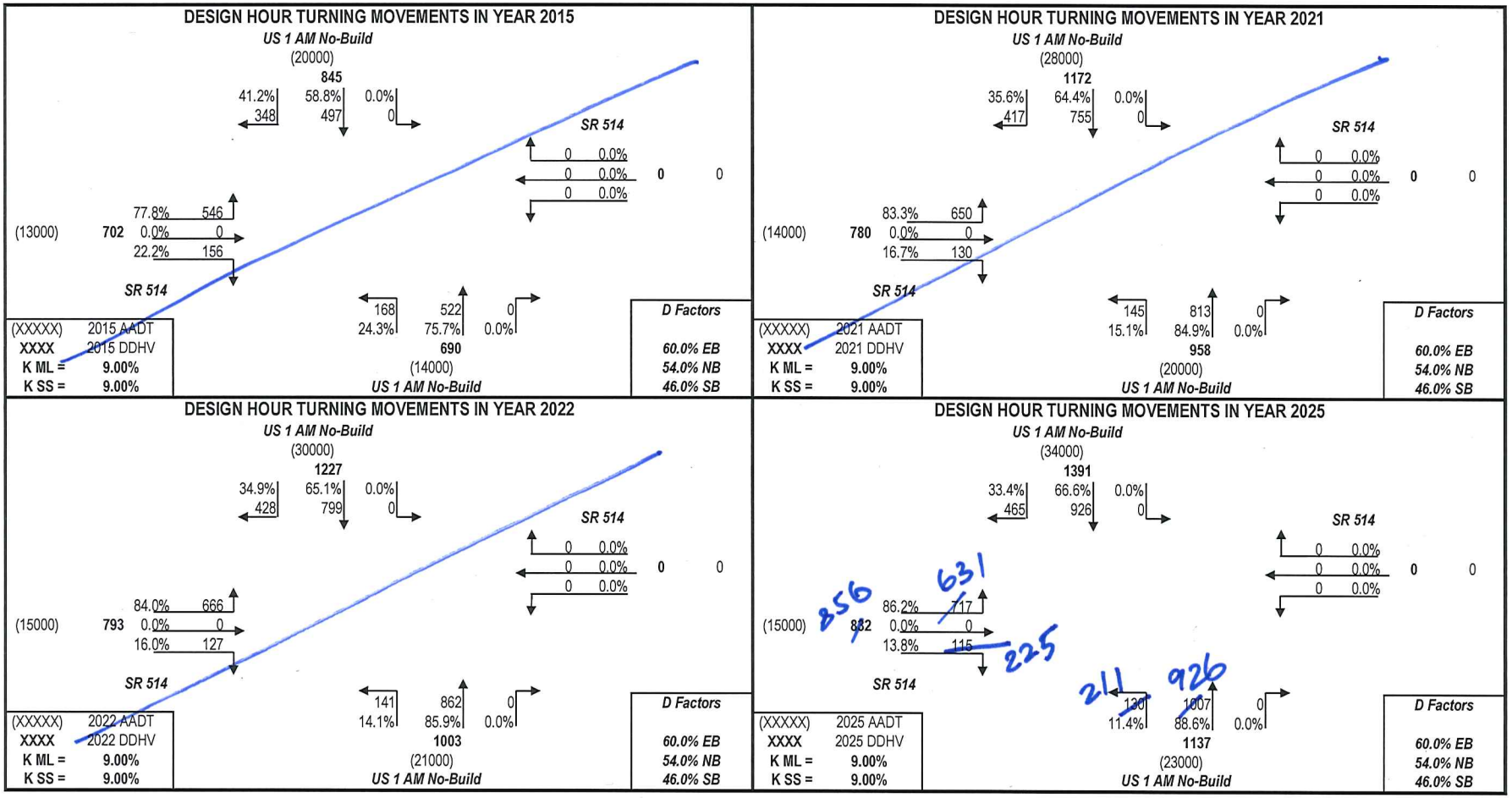
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- EB, WB, and SB
- EB, WB, and NB
- EB, SB, and NB
- WB, SB, and NB

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: US 1 PM No-Build
Project: SR514 DTTM Update
County: Brevard

Enter Yes or No

Is the Mainline Oriented North/South? No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	0.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	46.0%
Southbound (SB)	54.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: Yes

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025	0.00%	0.00%
Mid	2035		
Design	2045		

Mainline Growth Function: Linear

Side Street Growth Function: Linear

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	13000	0	20400	14200	47600
2025	15400	0	33600	23400	72400

First Guess Turning % Option Used
Existing Turning Movement Counts

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	60.0%	278	Existing Year AADTs
(EB THRU)	*West-to-East*	0.0%	0	
(EB RT)	*West-to-South*	40.0%	185	
(WB LT)	*East-to-South*	0.0%	0	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	0.0%	0	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	
(SB THRU)	*North-to-South*	50.3%	655	
(SB RT)	*North-to-West*	49.7%	648	
(NB LT)	*South-to-West*	37.1%	327	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	62.9%	555	
(NB RT)	*South-to-East*	0.0%	0	

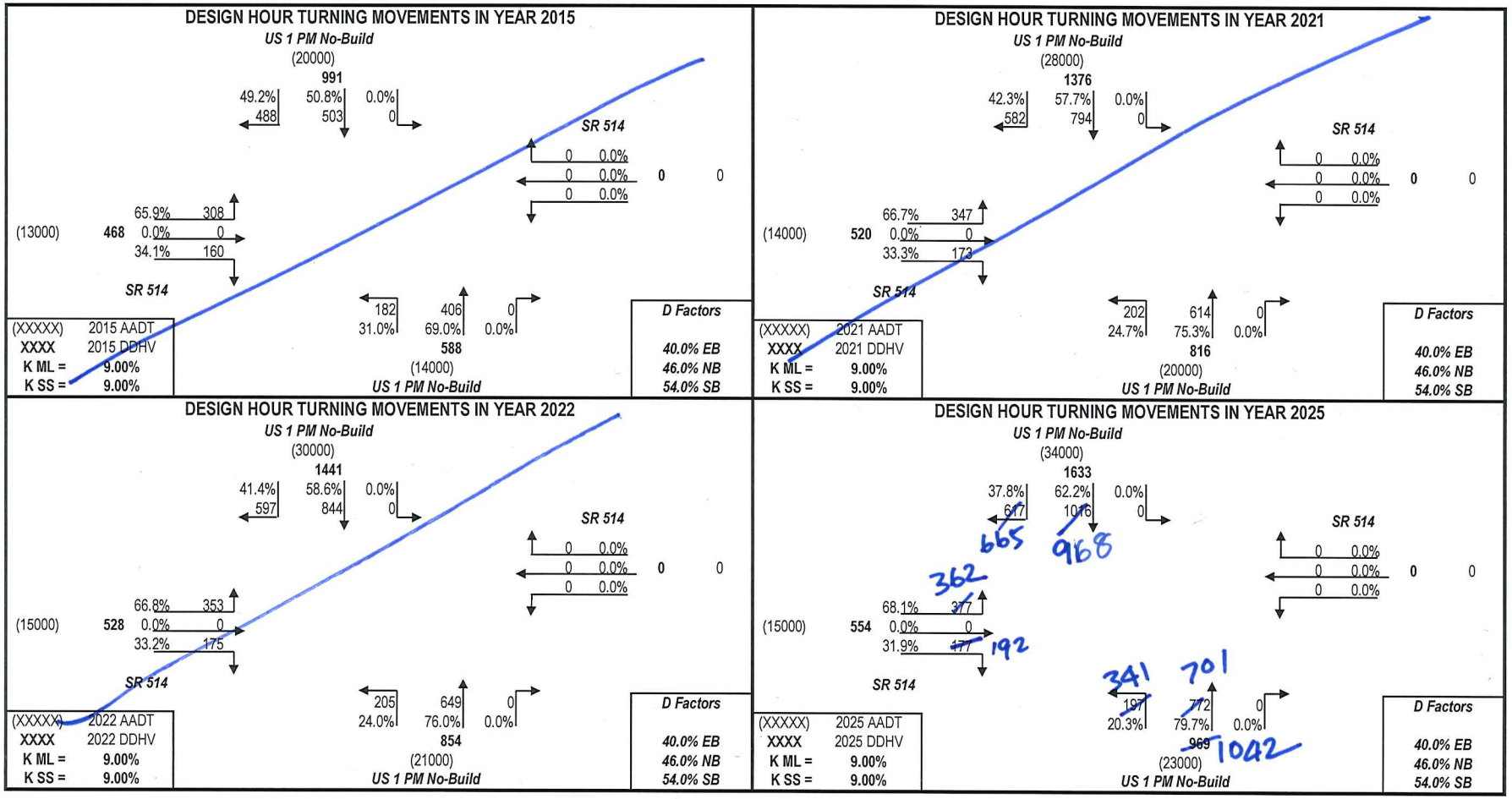
Desired Closure: 6.00

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

2045 NB

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy AM No-Build
Project: SR514 DTTM Update
County: Brevard

Enter Yes or No
Is the Mainline Oriented North/South? ○ Yes ◉ No

Is this a 4 way intersection?
○ Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
◉ EB, WB, and SB
○ EB, WB, and NB
○ EB, SB, and NB
○ WB, SB, and NB

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	34.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
◉ Yes
○ No

If "Yes" go to cell C47 If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
◉ Linear
○ Exponential
○ Decaying

Side Street Growth Function
◉ Linear
○ Exponential
○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	***TOTAL***
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	***TOTAL***
2015	18500	16400	2500	0	37400
2045	28200	24400	2500	0	55100

		1st Guess Turning %'s for AADT Balancing	**Actual/Counted Traffic for 2015**
(EB LT)	*West-to-North*	11.1%	98
(EB THRU)	*West-to-East*	88.9%	787
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	98.4%	635
(WB RT)	*East-to-North*	1.6%	10
(SB LT)	*North-to-East*	7.0%	3
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	93.0%	40
(NB LT)	*South-to-West*	0.0%	0
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 2.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

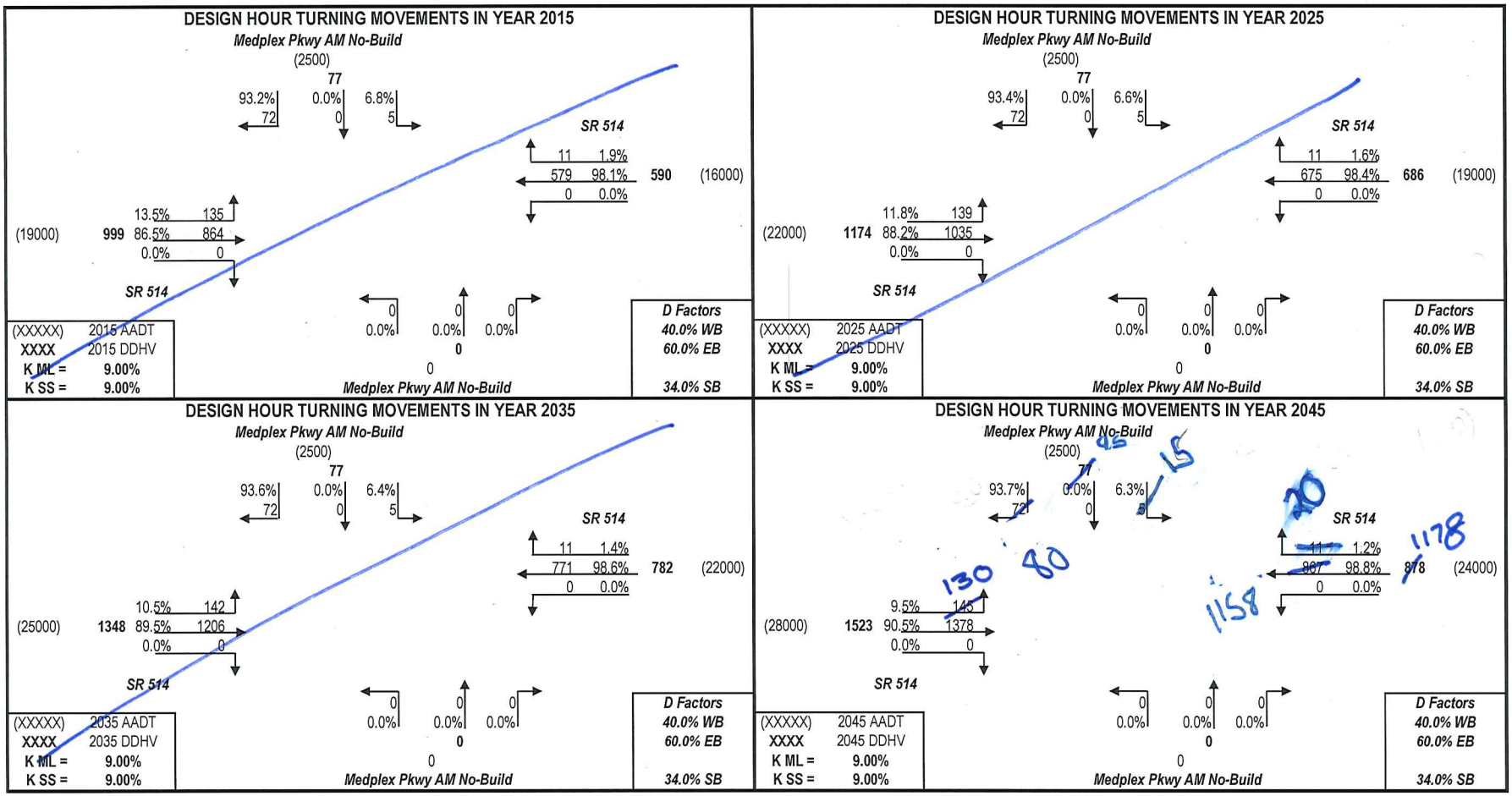
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ◉ EB, WB, and SB
- ○ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	66.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	18500	16400	2500	0	37400
2045	28200	24400	2500	0	55100

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	5.8%	43	Existing Year AADTs
(EB THRU)	*West-to-East*	94.2%	695	
(EB RT)	*West-to-South*	0.0%	0	
(WB LT)	*East-to-South*	0.0%	0	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	99.1%	864	
(WB RT)	*East-to-North*	0.9%	8	
(SB LT)	*North-to-East*	5.9%	6	
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	94.1%	96	
(NB LT)	*South-to-West*	0.0%	0	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	0.0%	0	

Desired Closure: 2.00

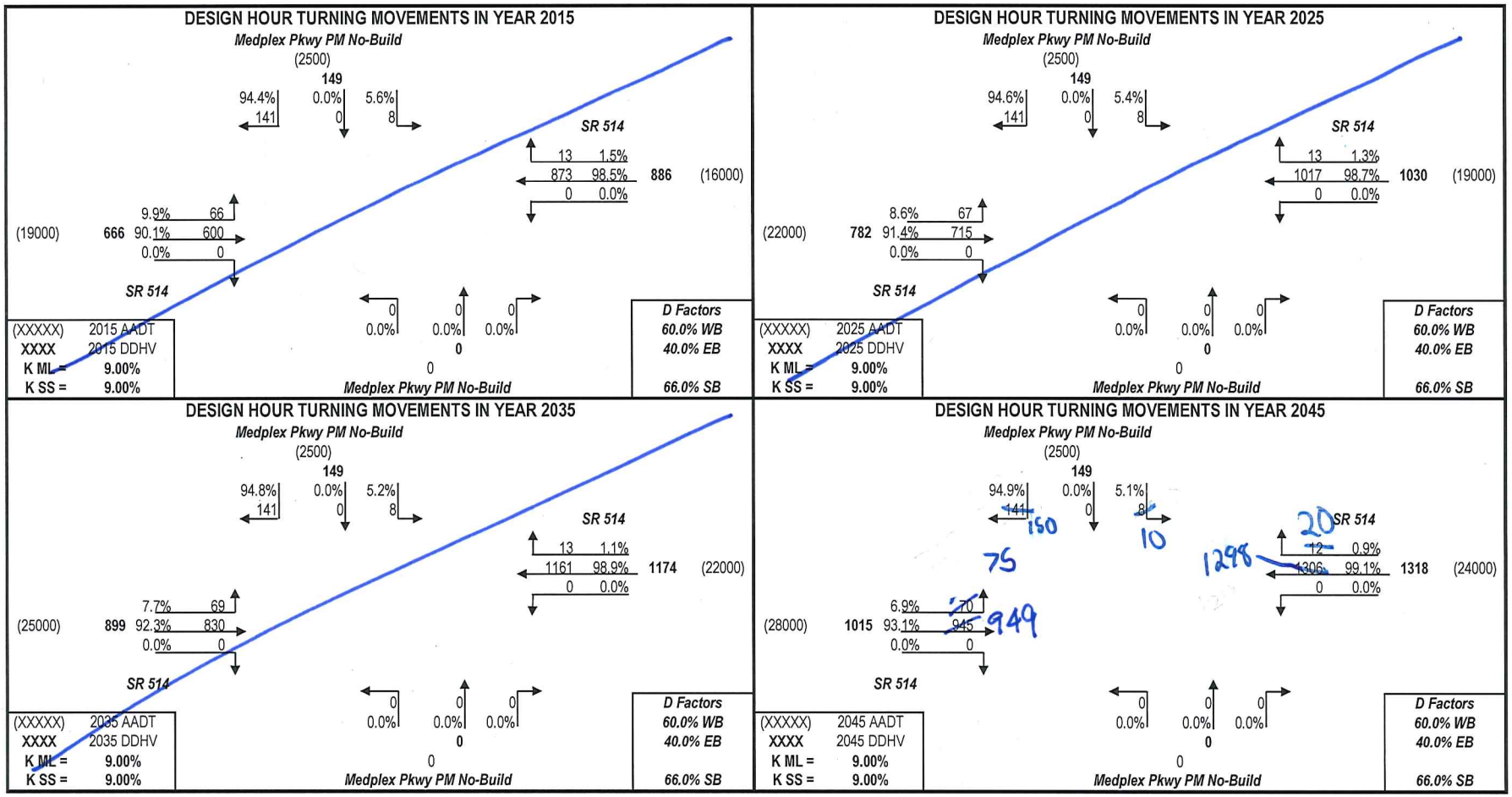
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Weber Road AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ○ EB, WB, and SB
- ◉ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	Mainline
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	61.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2045	24400	21600	0	7500	53500

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.0%	0
(EB THRU)	*West-to-East*	91.8%	693
(EB RT)	*West-to-South*	8.2%	62
(WB LT)	*East-to-South*	2.4%	13
(WB THRU)	*East-to-West*	97.6%	530
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	0.0%	0
(NB LT)	*South-to-West*	84.3%	145
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	15.7%	27

Desired Closure: 1.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

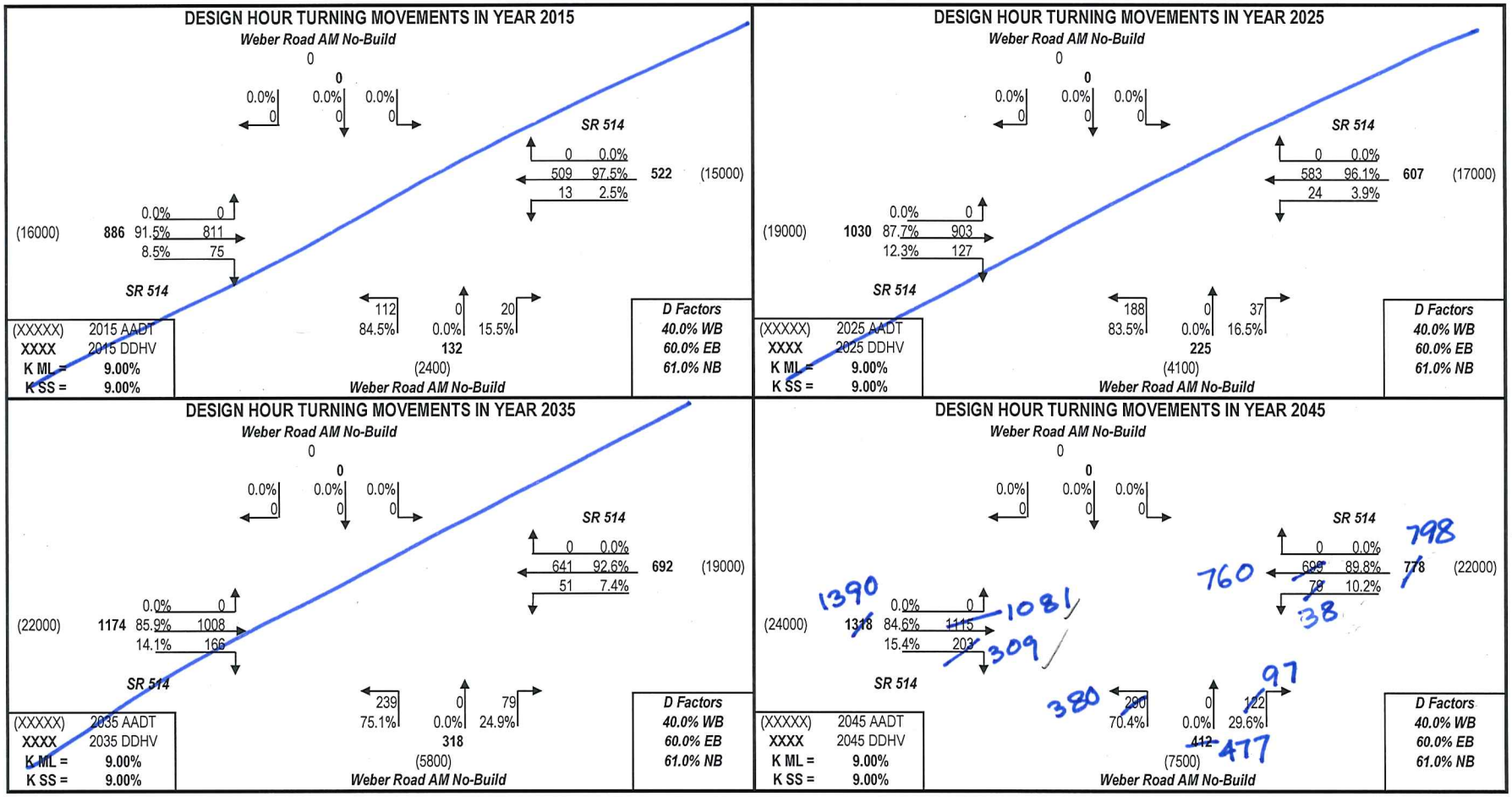
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Weber Road PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ○ EB, WB, and SB
- ◉ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ○ Yes ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	39.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: ◉ Yes ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2045	24400	21600	0	7500	53500

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.0%	0
(EB THRU)	*West-to-East*	75.7%	520
(EB RT)	*West-to-South*	24.3%	167
(WB LT)	*East-to-South*	4.3%	37
(WB THRU)	*East-to-West*	95.7%	821
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	0.0%	0
(NB LT)	*South-to-West*	80.2%	85
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	19.8%	21

Desired Closure: 1.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

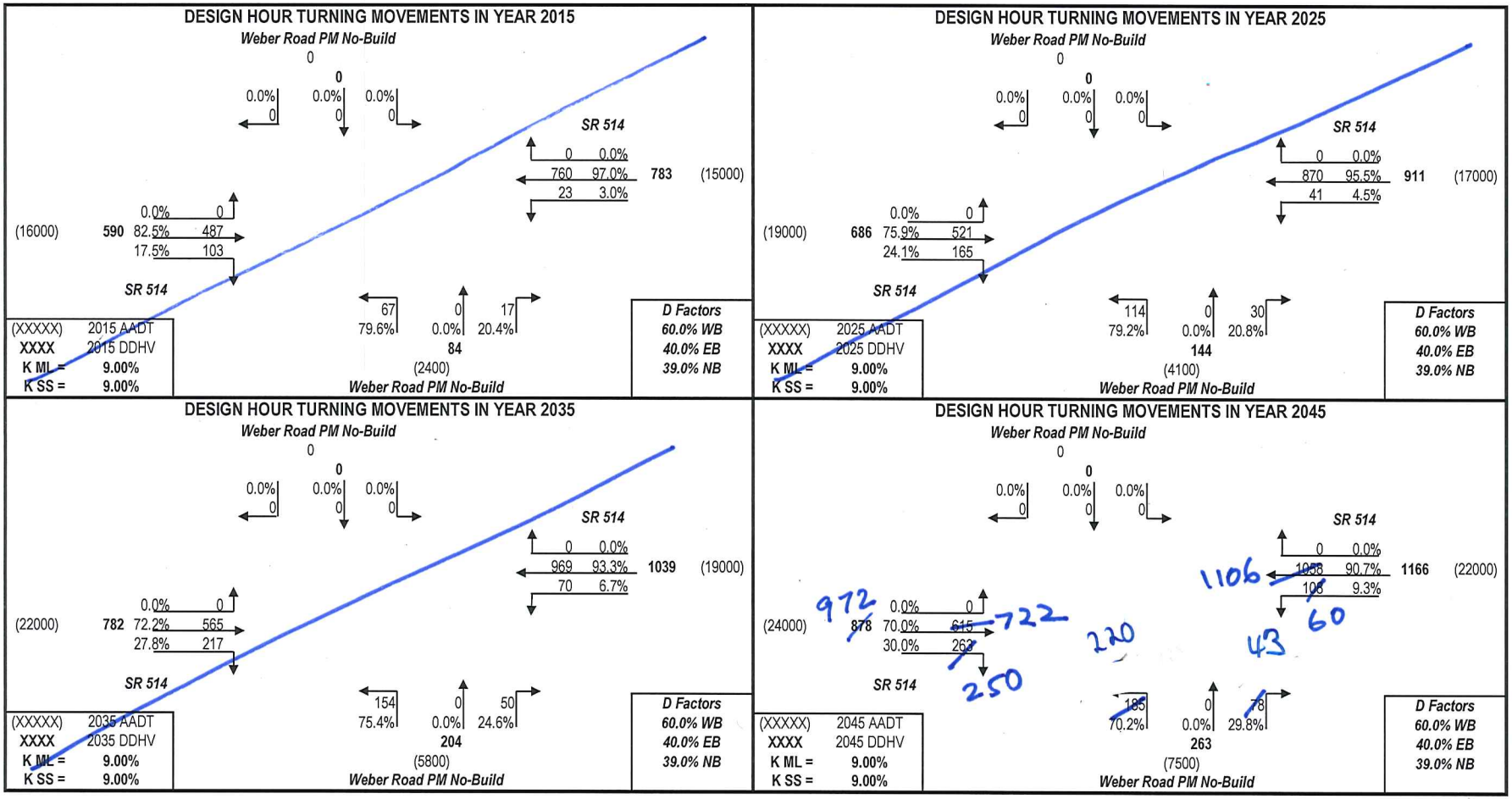
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Corey Road AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
(●) Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	63.0%
Southbound (SB)	37.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
(●) Yes
( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
(●) Linear
( ) Exponential
( ) Decaying

Side Street Growth Function
(●) Linear
( ) Exponential
( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	14500	12500	700	2200	29900
2045	21600	18900	1400	4600	46500

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	2.9%	22
(EB THRU)	*West-to-East*	93.2%	698
(EB RT)	*West-to-South*	3.9%	29
(WB LT)	*East-to-South*	2.6%	10
(WB THRU)	*East-to-West*	96.6%	379
(WB RT)	*East-to-North*	0.8%	3
(SB LT)	*North-to-East*	41.4%	29
(SB THRU)	*North-to-South*	11.5%	8
(SB RT)	*North-to-West*	47.1%	33
(NB LT)	*South-to-West*	50.5%	92
(NB THRU)	*South-to-North*	5.0%	9
(NB RT)	*South-to-East*	44.5%	81

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

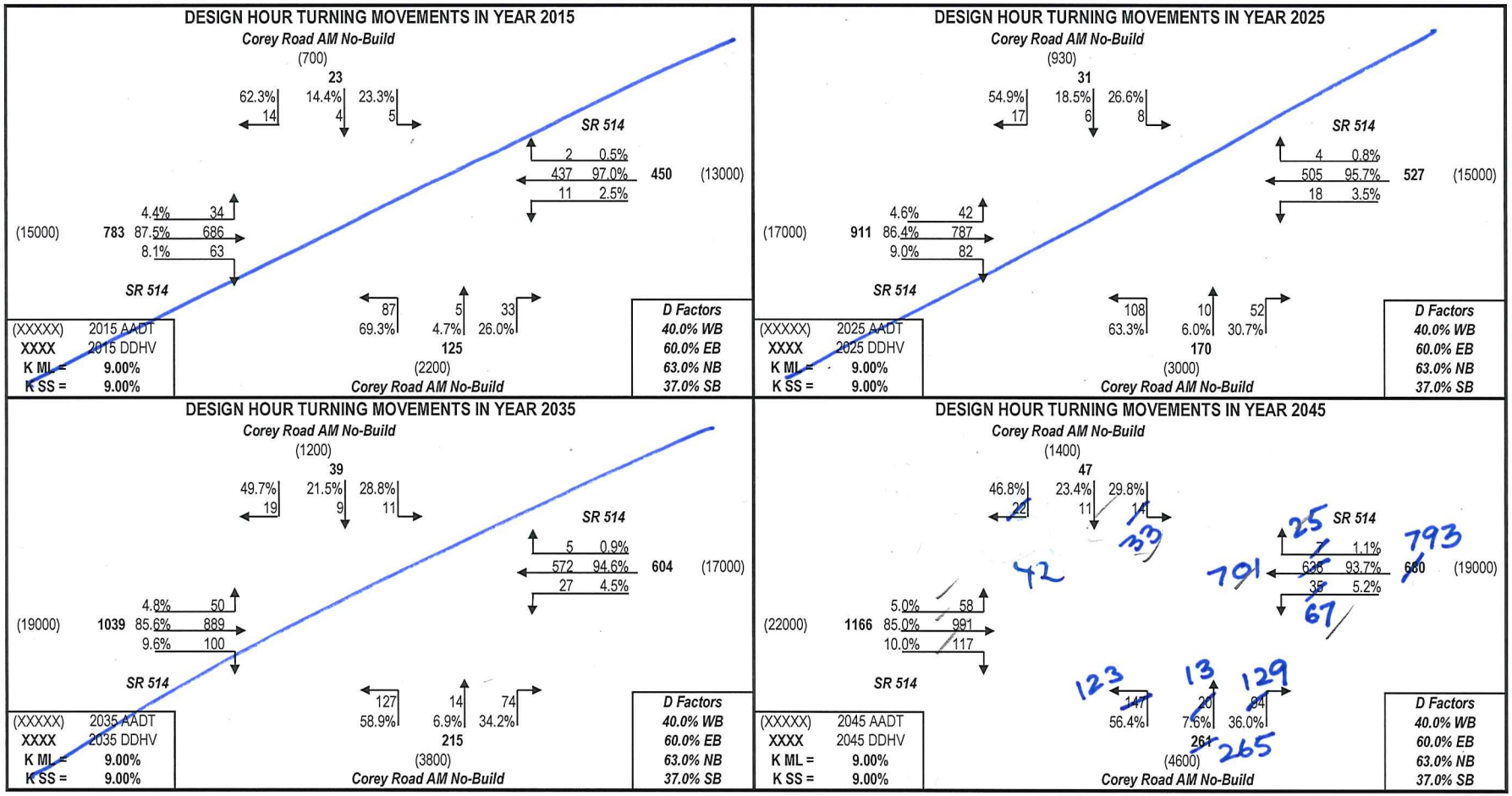
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 12-Mar-15
Highway: SR 514
Intersection: Corey Road PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
(●) Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	37.0%
Southbound (SB)	63.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
(●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
(●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function
(●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	14500	12500	700	2200	29900
2045	21600	18900	1400	4600	46500

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	3.8%	23
(EB THRU)	*West-to-East*	84.8%	507
(EB RT)	*West-to-South*	11.4%	68
(WB LT)	*East-to-South*	5.6%	50
(WB THRU)	*East-to-West*	90.9%	816
(WB RT)	*East-to-North*	3.5%	31
(SB LT)	*North-to-East*	32.3%	10
(SB THRU)	*North-to-South*	16.1%	5
(SB RT)	*North-to-West*	51.6%	16
(NB LT)	*South-to-West*	56.2%	41
(NB THRU)	*South-to-North*	5.4%	4
(NB RT)	*South-to-East*	38.4%	28

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

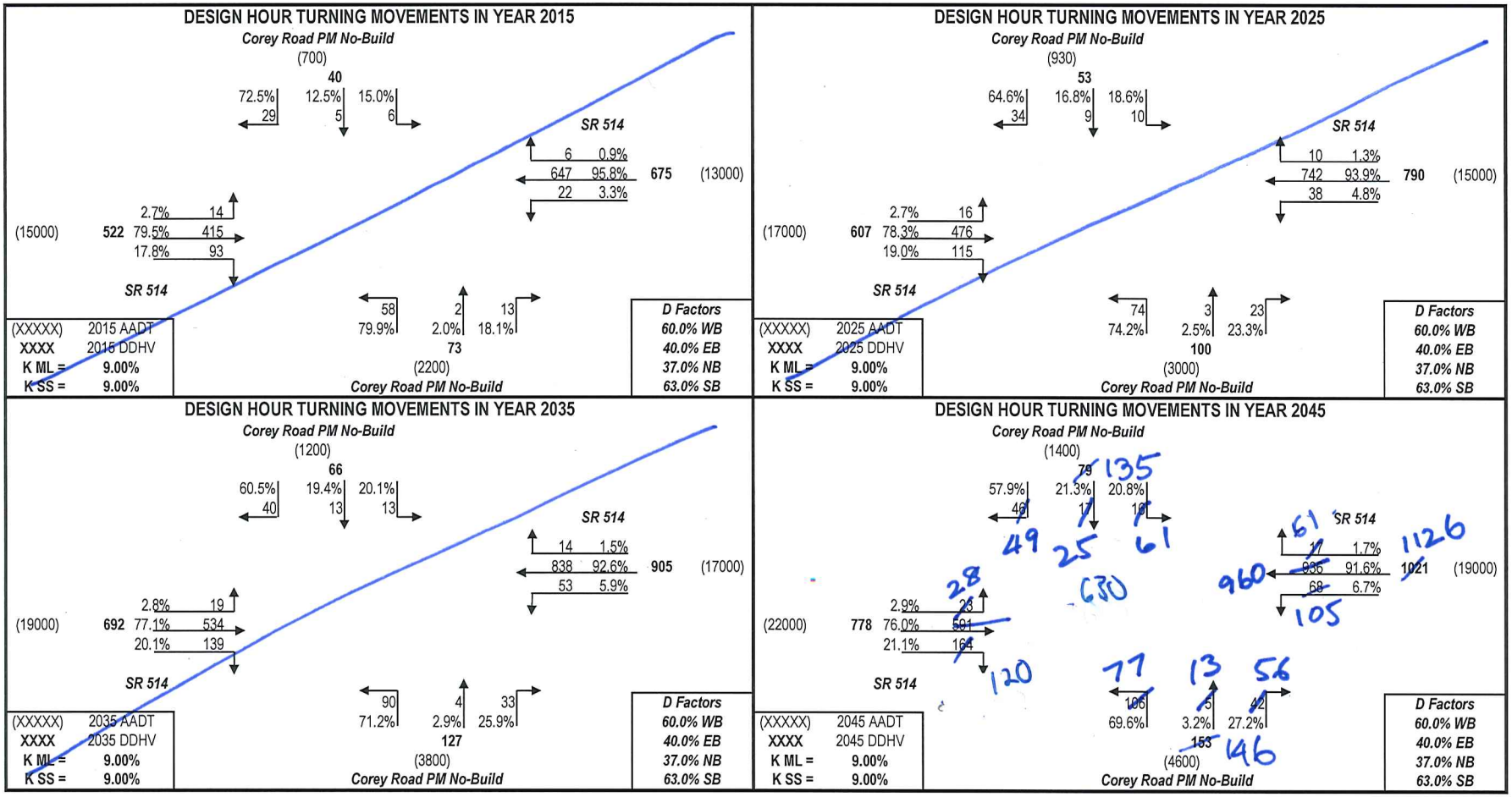
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 5-Mar-15
Highway: SR 514
Intersection: Marie Street AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
(●) Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	60.0%
Southbound (SB)	40.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
(●) Yes ( ) No

If "Yes" go to cell C47 If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
(●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function
(●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	12500	13000	200	600	26300
2045	18900	19300	200	800	39200

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.6%	5
(EB THRU)	*West-to-East*	99.0%	790
(EB RT)	*West-to-South*	0.4%	3
(WB LT)	*East-to-South*	0.9%	4
(WB THRU)	*East-to-West*	98.9%	420
(WB RT)	*East-to-North*	0.2%	1
(SB LT)	*North-to-East*	33.3%	3
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	66.7%	6
(NB LT)	*South-to-West*	7.7%	3
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	92.3%	36

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

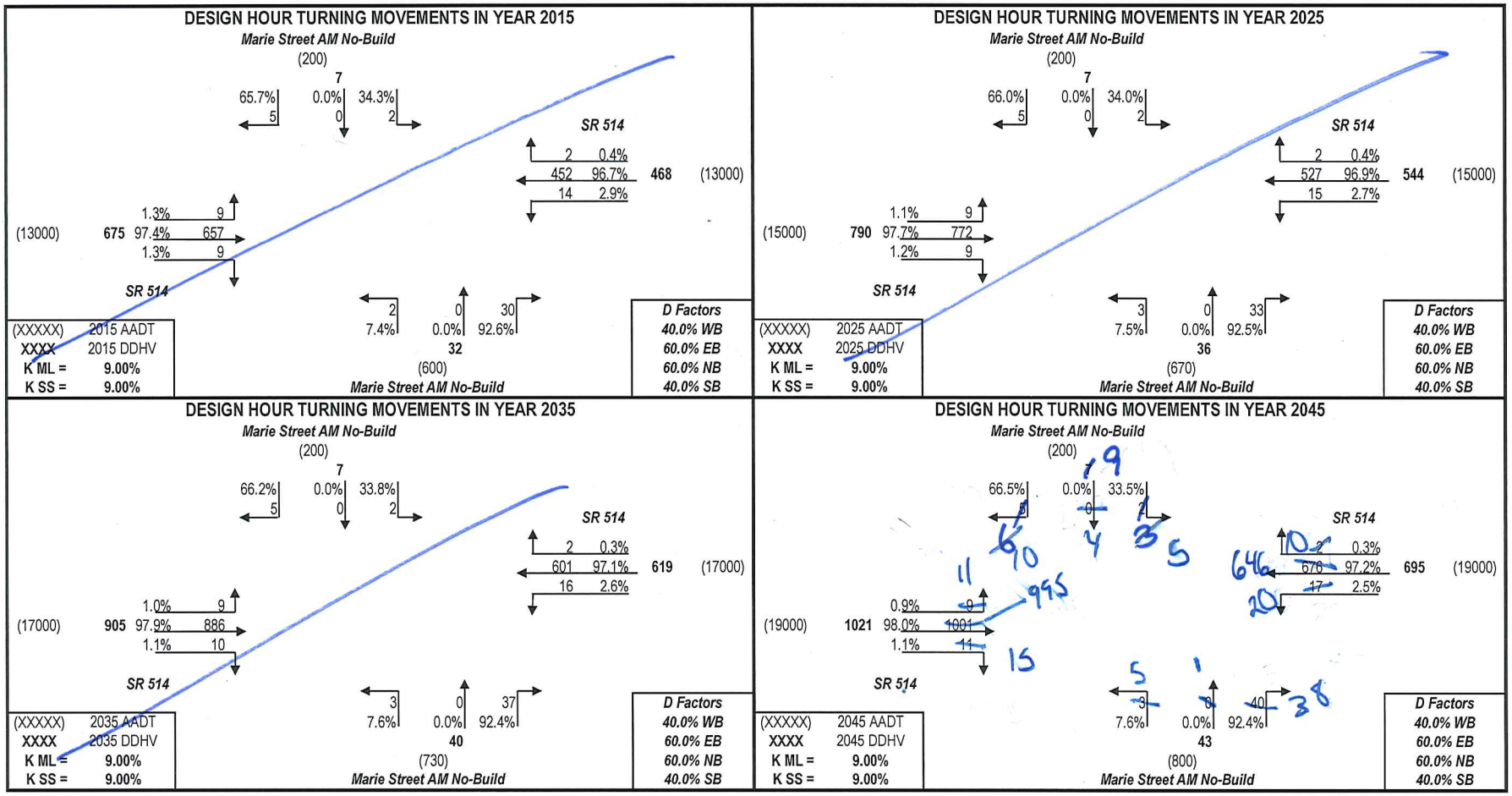
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Marie Street PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
(●) Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	40.0%
Southbound (SB)	60.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
(●) Yes
( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
(●) Linear
( ) Exponential
( ) Decaying

Side Street Growth Function
(●) Linear
( ) Exponential
( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	12500	13000	200	600	26300
2045	18900	19300	200	800	39200

First Guess Turning % Option Used
Existing Turning Movement Counts

		1st Guess Turning %'s for AADT Balancing	**Actual/Counted Traffic for 2015**
(EB LT)	*West-to-North*	0.2%	1
(EB THRU)	*West-to-East*	99.8%	533
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	2.6%	24
(WB THRU)	*East-to-West*	96.7%	910
(WB RT)	*East-to-North*	0.7%	7
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	20.0%	1
(SB RT)	*North-to-West*	80.0%	4
(NB LT)	*South-to-West*	32.1%	9
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	67.9%	19

Desired Closure: 0.50

Existing Year AADTs

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

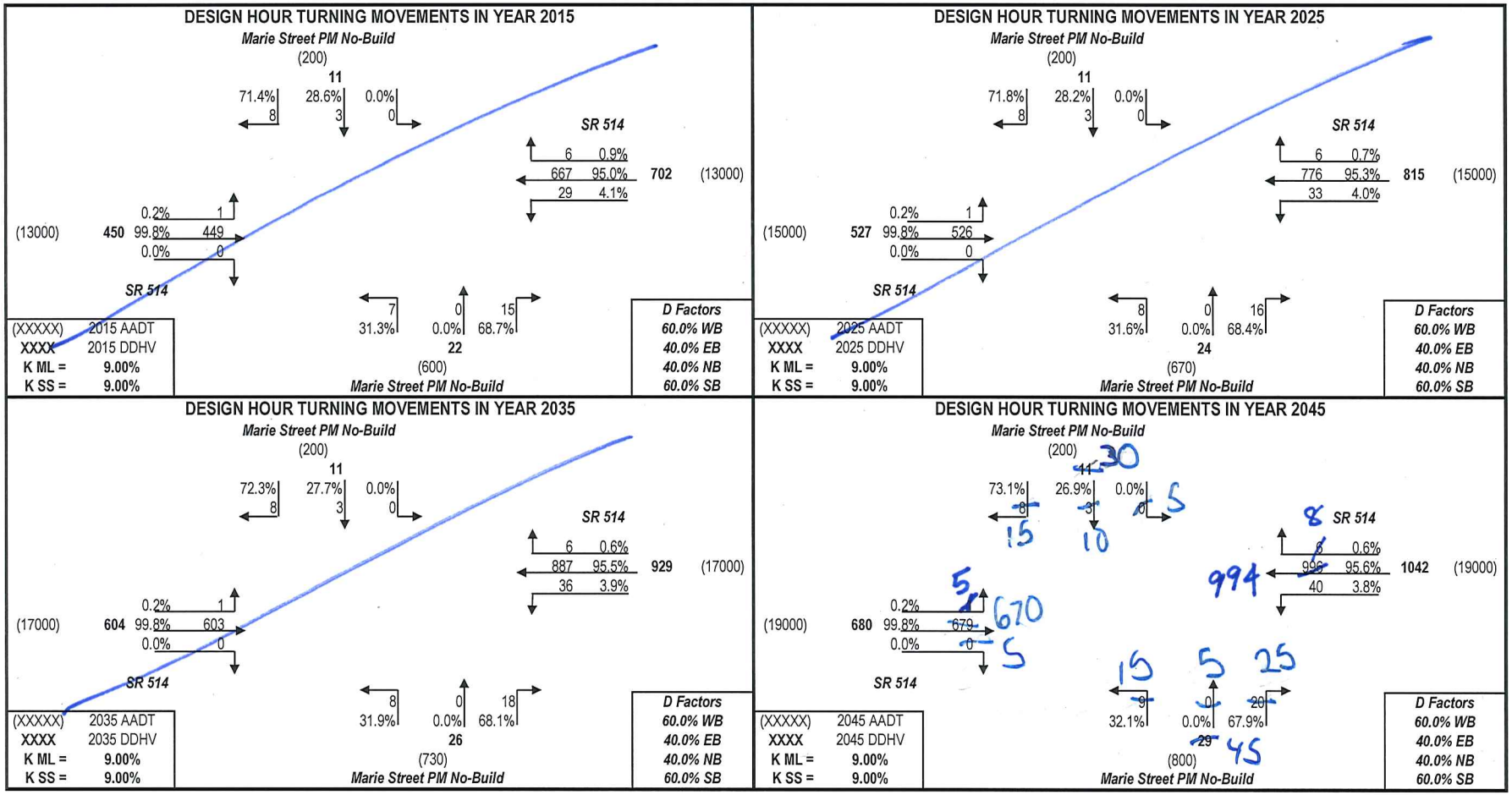
Existing Turning Movement Counts

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street PM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: US 1 AM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South? ○ Yes ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	0.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	54.0%
Southbound (SB)	46.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
◉ Yes ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
◉ Linear ○ Exponential ○ Decaying

Side Street Growth Function
◉ Linear ○ Exponential ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	13000	0	20400	14200	47600
2045	19300	0	48600	36800	104700

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	74.0%	623	Existing Year AADTs
(EB THRU)	*West-to-East*	0.0%	0	
(EB RT)	*West-to-South*	26.0%	219	
(WB LT)	*East-to-South*	0.0%	0	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	0.0%	0	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	
(SB THRU)	*North-to-South*	63.2%	355	
(SB RT)	*North-to-West*	36.8%	207	
(NB LT)	*South-to-West*	24.7%	208	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	75.3%	633	
(NB RT)	*South-to-East*	0.0%	0	

Desired Closure: 0.50

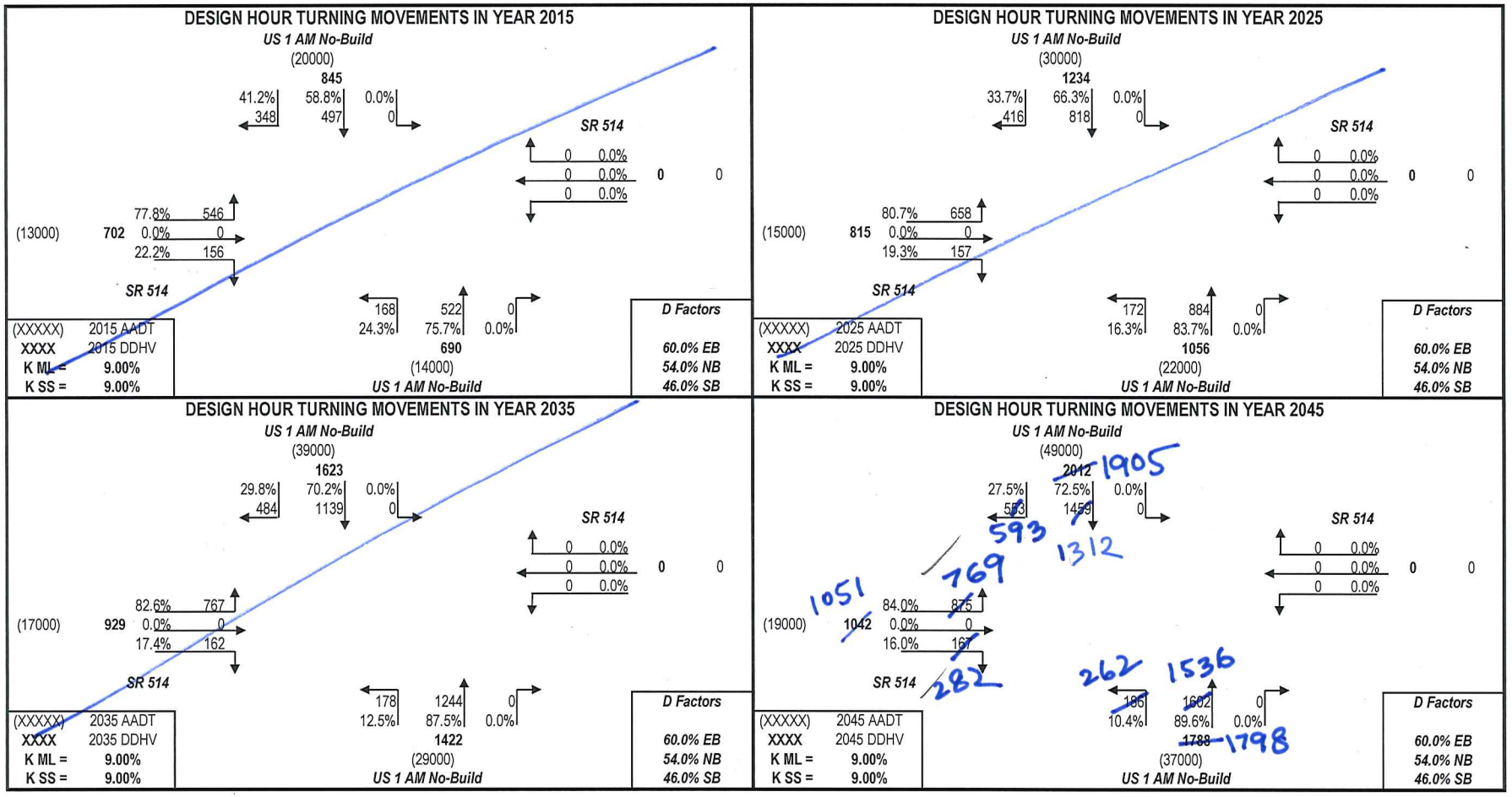
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 AM No-Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: US 1 PM No-Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	Mainline
Westbound (WB)	0.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	46.0%
Southbound (SB)	54.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	13000	0	20400	14200	47600
2045	19300	0	48600	36800	104700

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	60.0%	278
(EB THRU)	*West-to-East*	0.0%	0
(EB RT)	*West-to-South*	40.0%	185
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	0.0%	0
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	50.3%	655
(SB RT)	*North-to-West*	49.7%	648
(NB LT)	*South-to-West*	37.1%	327
(NB THRU)	*South-to-North*	62.9%	555
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 6.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

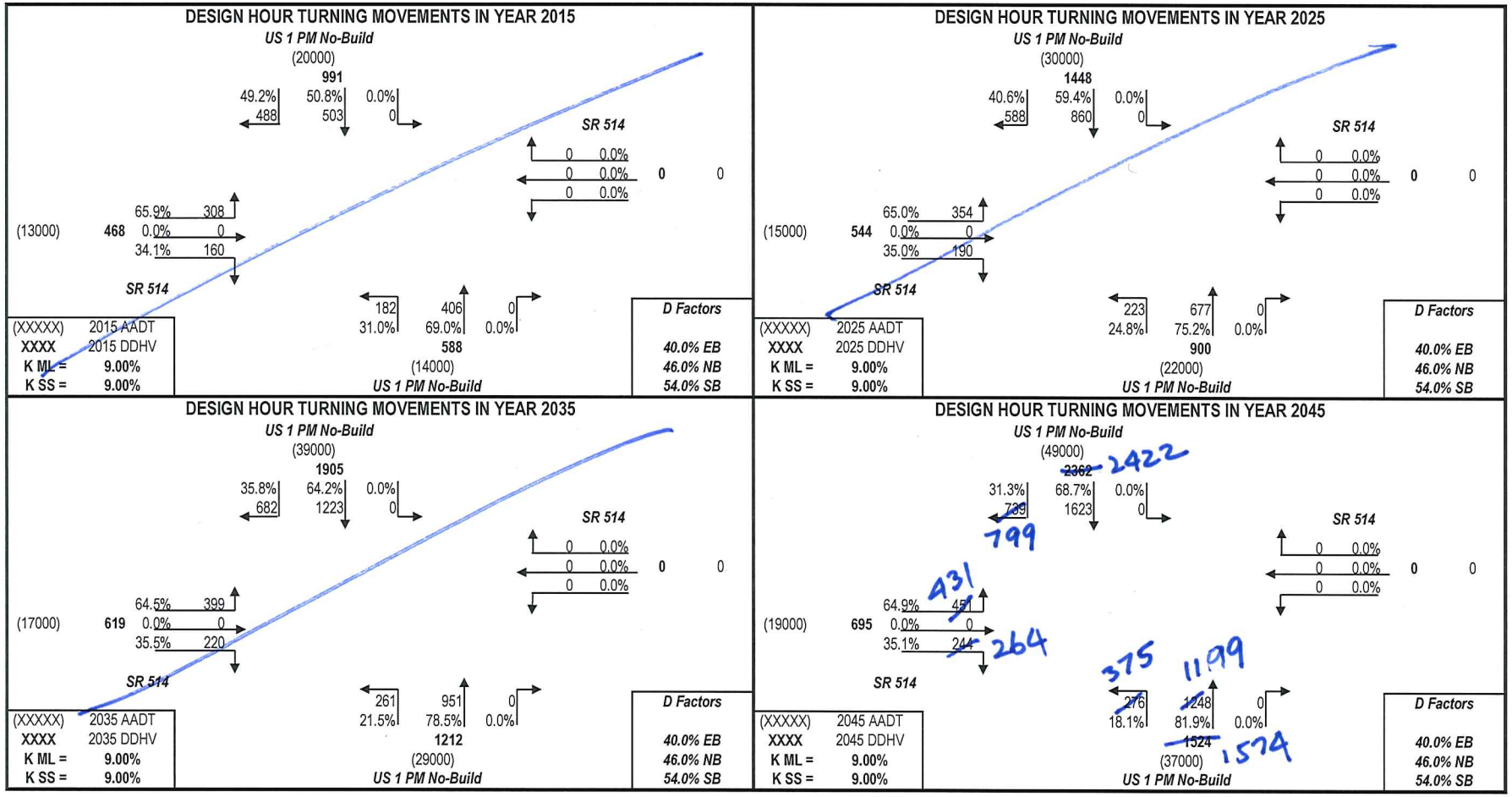
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 PM No-Build



2025 BUILD

TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy AM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ◉ EB, WB, and SB
- ○ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	34.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	18500	16400	2500	0	37400
2025	23900	21600	2500	0	48000

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	11.1%	98
(EB THRU)	*West-to-East*	88.9%	787
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	98.4%	635
(WB RT)	*East-to-North*	1.6%	10
(SB LT)	*North-to-East*	7.0%	3
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	93.0%	40
(NB LT)	*South-to-West*	0.0%	0
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 1.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

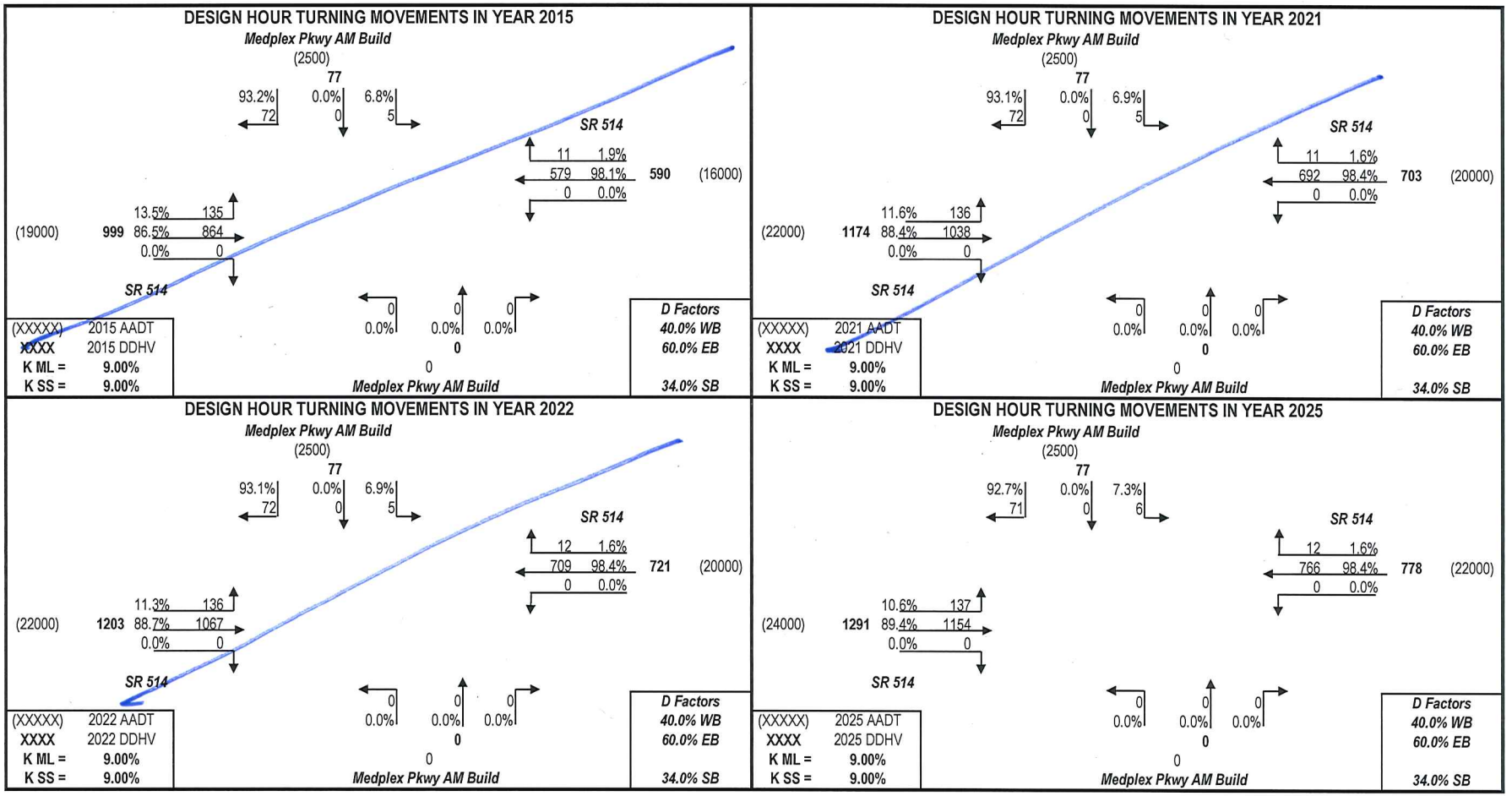
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy PM Build
Project: SR514 DTTM Update
County: Brevard
Enter Yes or No

Is the Mainline Oriented North/South? ○ Yes ◉ No

Is this a 4 way intersection?
○ Yes, my intersection has four approaches
If not, which 3 approaches exist in the intersection?
◉ EB, WB, and SB
○ EB, WB, and NB
○ EB, SB, and NB
○ WB, SB, and NB

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	66.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
◉ Yes
○ No

If "Yes" go to cell C47 If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025	0.00%	0.00%
Mid	2035		
Design	2045		

Mainline Growth Function
◉ Linear
○ Exponential
○ Decaying

Side Street Growth Function
◉ Linear
○ Exponential
○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	18500	16400	2500	0	37400
2025	23900	21600	2500	0	48000

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	5.8%	43	Existing Year AADTs
(EB THRU)	*West-to-East*	94.2%	695	
(EB RT)	*West-to-South*	0.0%	0	
(WB LT)	*East-to-South*	0.0%	0	
(WB THRU)	*East-to-West*	99.1%	864	
(WB RT)	*East-to-North*	0.9%	8	
(SB LT)	*North-to-East*	5.9%	6	Existing Turning Movement Counts
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	94.1%	96	
(NB LT)	*South-to-West*	0.0%	0	
(NB THRU)	*South-to-North*	0.0%	0	FSUTMS Model Year AADTs
(NB RT)	*South-to-East*	0.0%	0	

Desired Closure: 1.50

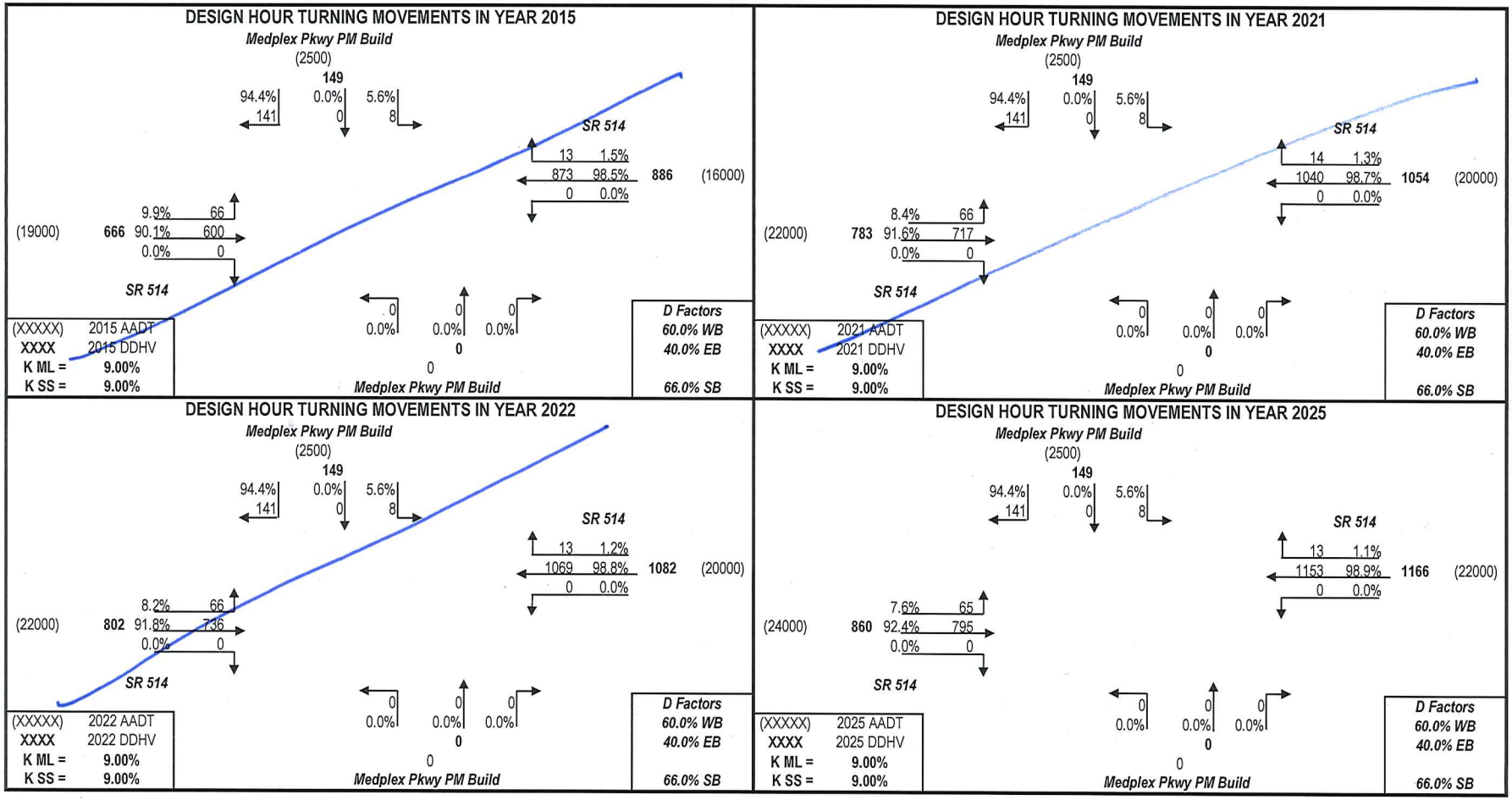
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Weber Road AM Build
Project: SR514 DTTM Update
County: Brevard

Is the Mainline Oriented North/South? (Enter Yes or No): No

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ◉ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	61.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N) (Enter Yes or No): Yes

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2025	21600	19100	0	4800	45500

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	0.0%	0	Existing Year AADTs
(EB THRU)	*West-to-East*	91.8%	693	
(EB RT)	*West-to-South*	8.2%	62	
(WB LT)	*East-to-South*	2.4%	13	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	97.6%	530	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	0.0%	0	
(NB LT)	*South-to-West*	84.3%	145	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	15.7%	27	

Desired Closure: 1.00

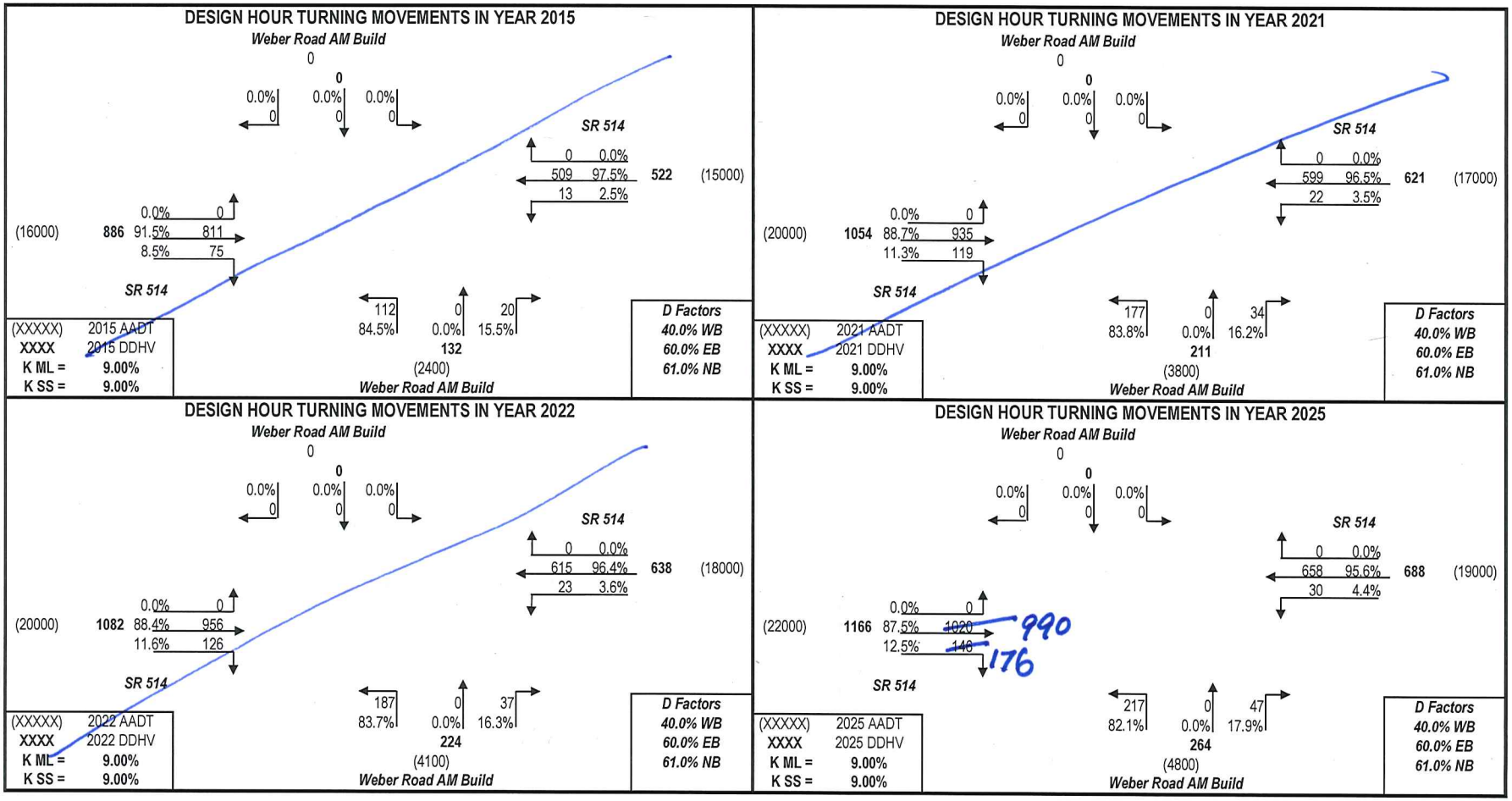
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: Weber Road PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ○ EB, WB, and SB
- ◉ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	39.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2025	21600	19100	0	4800	45500

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.0%	0
(EB THRU)	*West-to-East*	75.7%	520
(EB RT)	*West-to-South*	24.3%	167
(WB LT)	*East-to-South*	4.3%	37
(WB THRU)	*East-to-West*	95.7%	821
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	0.0%	0
(NB LT)	*South-to-West*	80.2%	85
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	19.8%	21

Desired Closure: 1.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

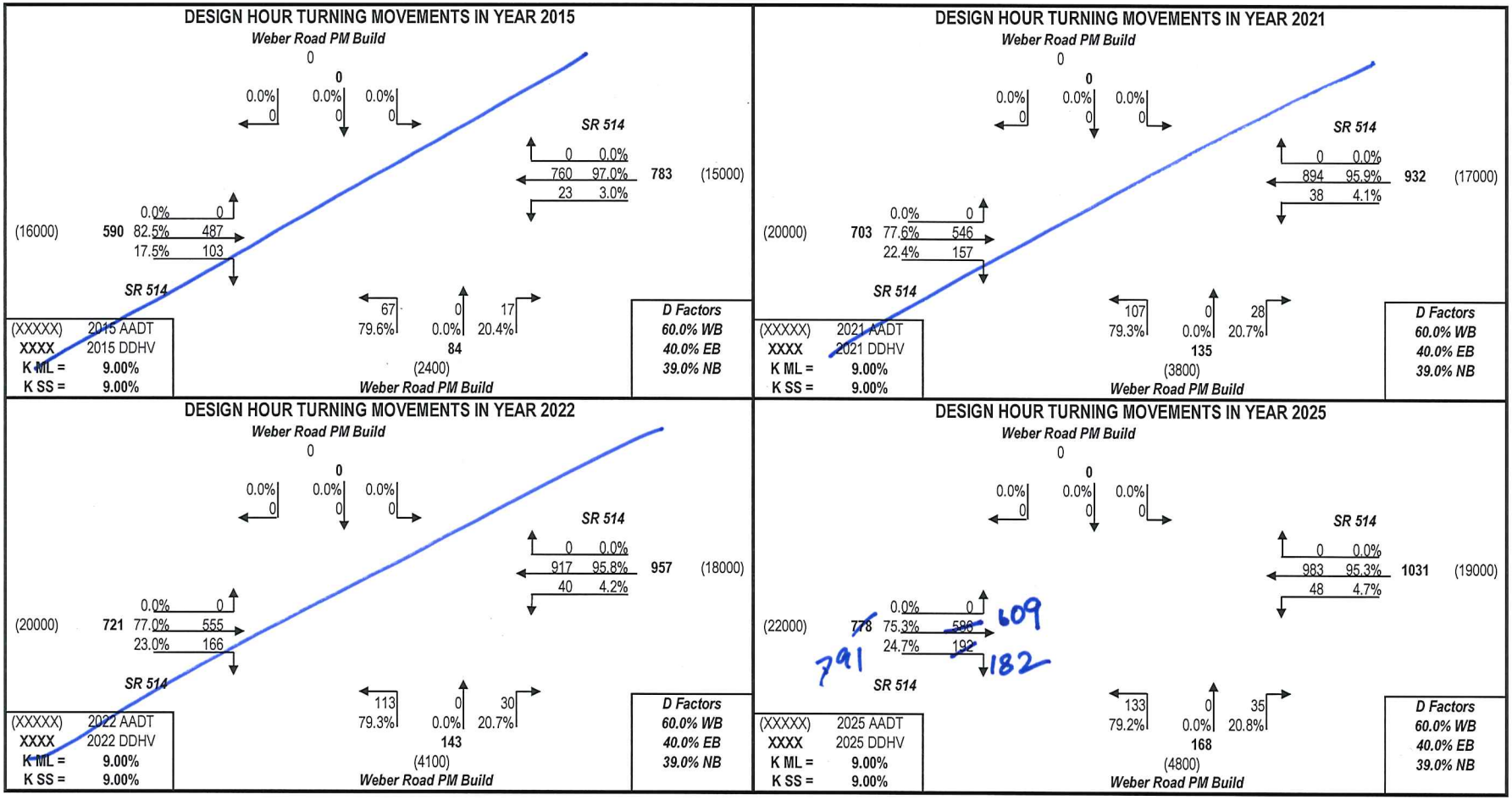
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road PM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 11-Mar-15
Highway: SR 514
Intersection: Corey Road AM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	63.0%
Southbound (SB)	37.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	14500	12500	700	2200	29900
2025	19100	16900	1000	3200	40200

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	2.9%	22
(EB THRU)	*West-to-East*	93.2%	698
(EB RT)	*West-to-South*	3.9%	29
(WB LT)	*East-to-South*	2.6%	10
(WB THRU)	*East-to-West*	96.6%	379
(WB RT)	*East-to-North*	0.8%	3
(SB LT)	*North-to-East*	41.4%	29
(SB THRU)	*North-to-South*	11.5%	8
(SB RT)	*North-to-West*	47.1%	33
(NB LT)	*South-to-West*	50.5%	92
(NB THRU)	*South-to-North*	5.0%	9
(NB RT)	*South-to-East*	44.5%	81

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

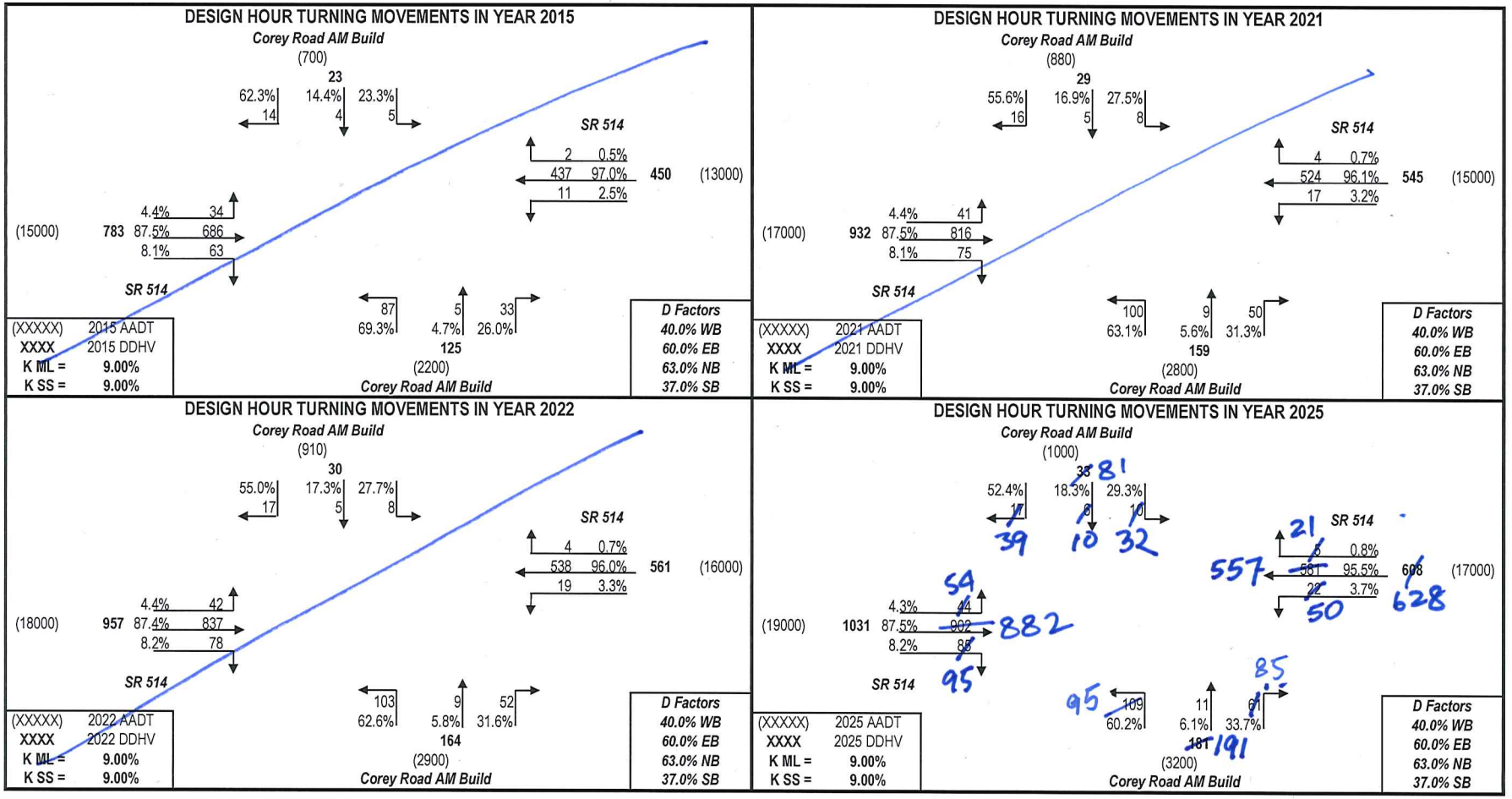
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 11-Mar-15
Highway: SR 514
Intersection: Corey Road PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? (○) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	37.0%
Southbound (SB)	63.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	14500	12500	700	2200	29900
2025	19100	16900	1000	3200	40200

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	3.8%	23
(EB THRU)	*West-to-East*	84.8%	507
(EB RT)	*West-to-South*	11.4%	68
(WB LT)	*East-to-South*	5.6%	50
(WB THRU)	*East-to-West*	90.9%	816
(WB RT)	*East-to-North*	3.5%	31
(SB LT)	*North-to-East*	32.3%	10
(SB THRU)	*North-to-South*	16.1%	5
(SB RT)	*North-to-West*	51.6%	16
(NB LT)	*South-to-West*	56.2%	41
(NB THRU)	*South-to-North*	5.4%	4
(NB RT)	*South-to-East*	38.4%	28

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

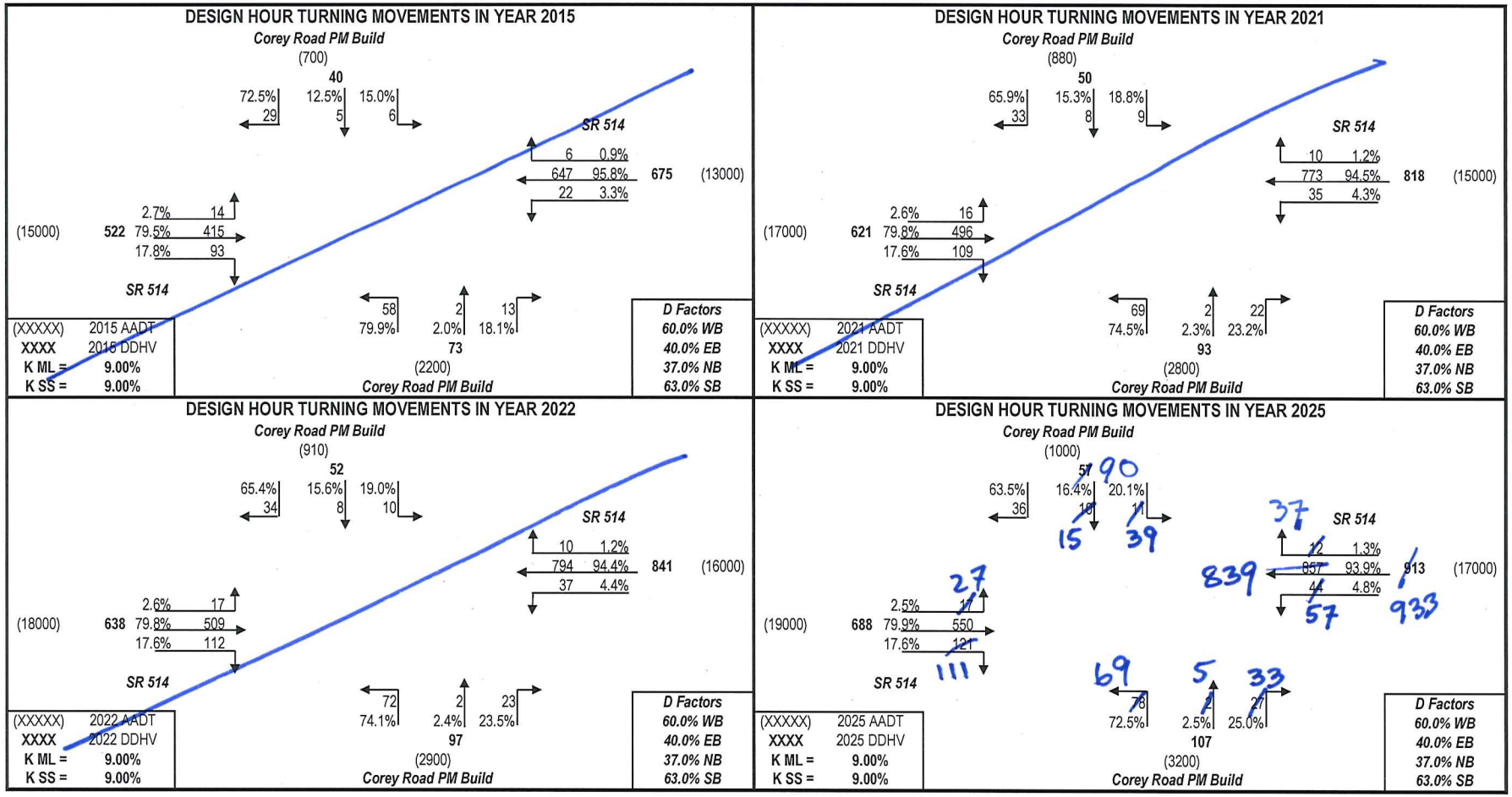
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road PM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 10-Mar-15
Highway: SR 514
Intersection: Marie Street AM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

(•) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (•) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	60.0%
Southbound (SB)	40.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (•) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (•) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (•) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	12500	13000	200	600	26300
2025	16900	17200	200	700	35000

First Guess Turning % Option Used
Existing Turning Movement Counts

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	0.6%	5	Existing Year AADTs
(EB THRU)	*West-to-East*	99.0%	790	
(EB RT)	*West-to-South*	0.4%	3	
(WB LT)	*East-to-South*	0.9%	4	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	98.9%	420	
(WB RT)	*East-to-North*	0.2%	1	
(SB LT)	*North-to-East*	33.3%	3	
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	66.7%	6	
(NB LT)	*South-to-West*	7.7%	3	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	92.3%	36	

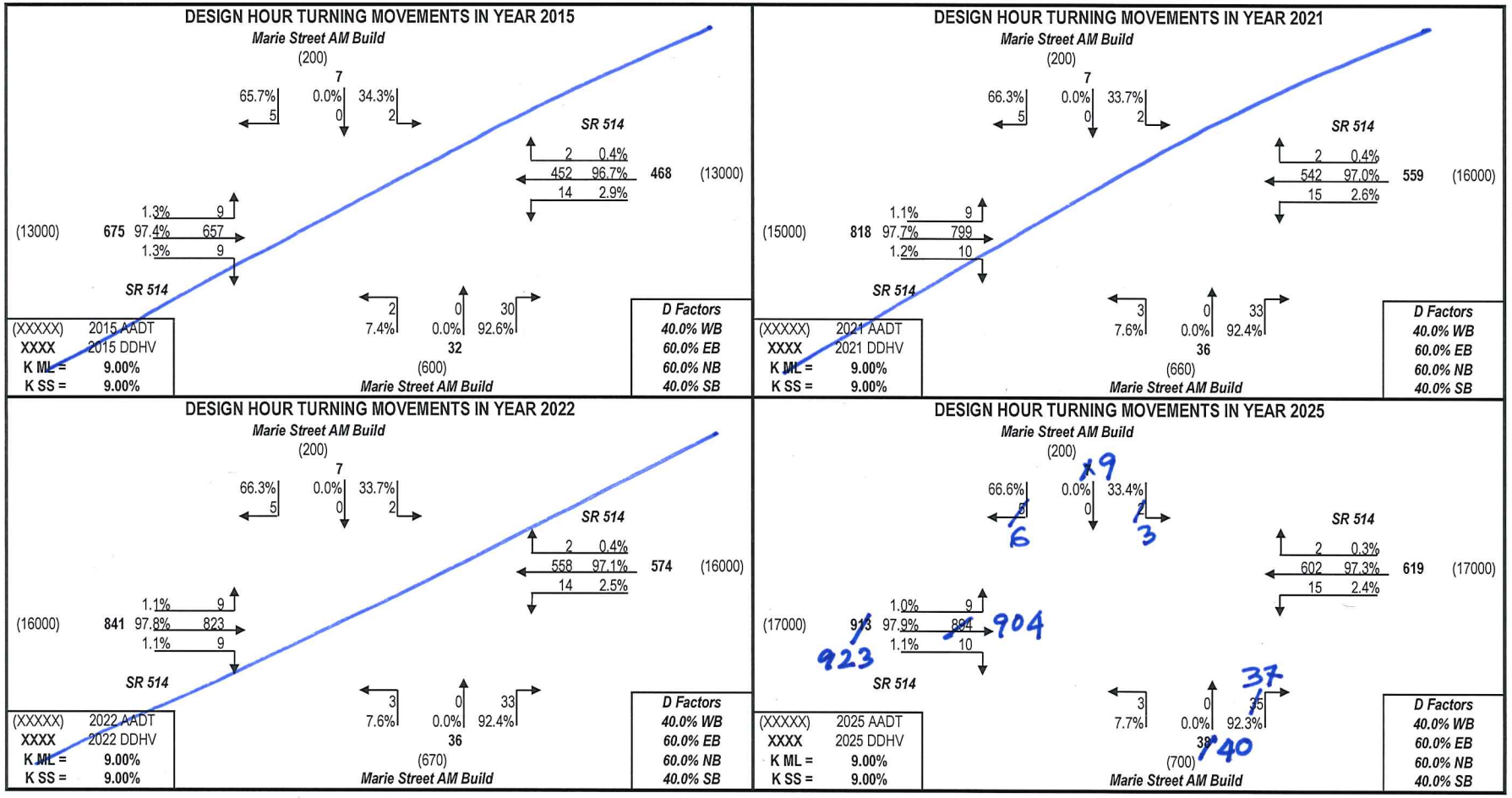
Desired Closure: 0.50

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street AM Build



TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Analyst:	-
Date:	11-Mar-15
Highway:	SR 514
Intersection:	Marie Street PM Build
Project:	SR514 DTTM Update
County:	Brevard

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	40.0%
Southbound (SB)	60.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

(●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function

(●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function

(●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:

(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:

(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	12500	13000	200	600	26300
2025	16900	17200	200	700	35000

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.2%	1
(EB THRU)	*West-to-East*	99.8%	533
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	2.6%	24
(WB THRU)	*East-to-West*	96.7%	910
(WB RT)	*East-to-North*	0.7%	7
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	20.0%	1
(SB RT)	*North-to-West*	80.0%	4
(NB LT)	*South-to-West*	32.1%	9
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	67.9%	19

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

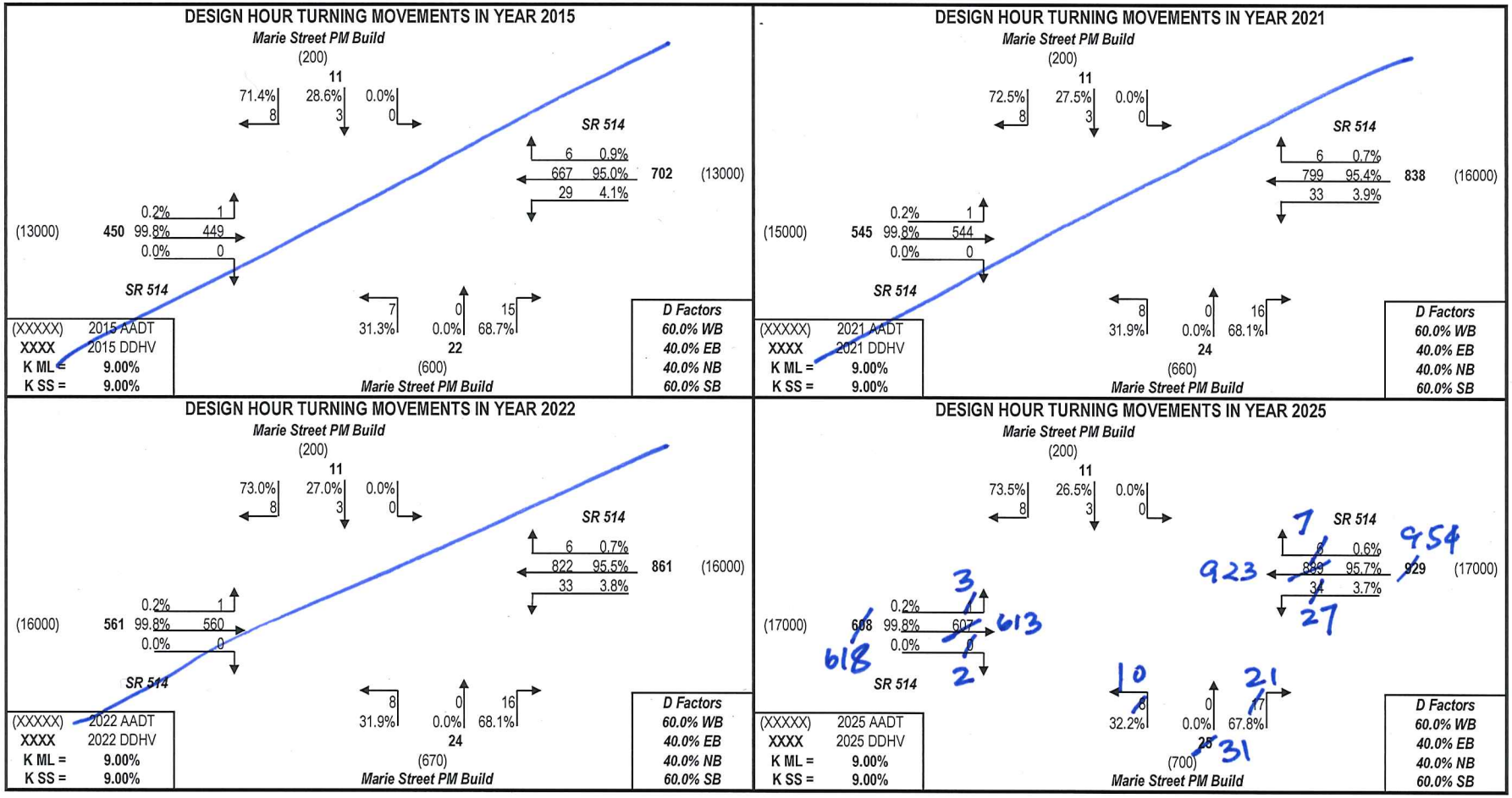
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street PM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: US 1 AM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	0.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	54.0%
Southbound (SB)	46.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	13000	0	20400	14200	47600
2025	17200	0	33600	23400	74200

First Guess Turning % Option Used
Existing Turning Movement Counts

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	74.0%	623	Existing Year AADTs
(EB THRU)	*West-to-East*	0.0%	0	
(EB RT)	*West-to-South*	26.0%	219	
(WB LT)	*East-to-South*	0.0%	0	
(WB THRU)	*East-to-West*	0.0%	0	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	Existing Turning Movement Counts
(SB THRU)	*North-to-South*	63.2%	355	
(SB RT)	*North-to-West*	36.8%	207	
(NB LT)	*South-to-West*	24.7%	208	
(NB THRU)	*South-to-North*	75.3%	633	FSUTMS Model Year AADTs
(NB RT)	*South-to-East*	0.0%	0	

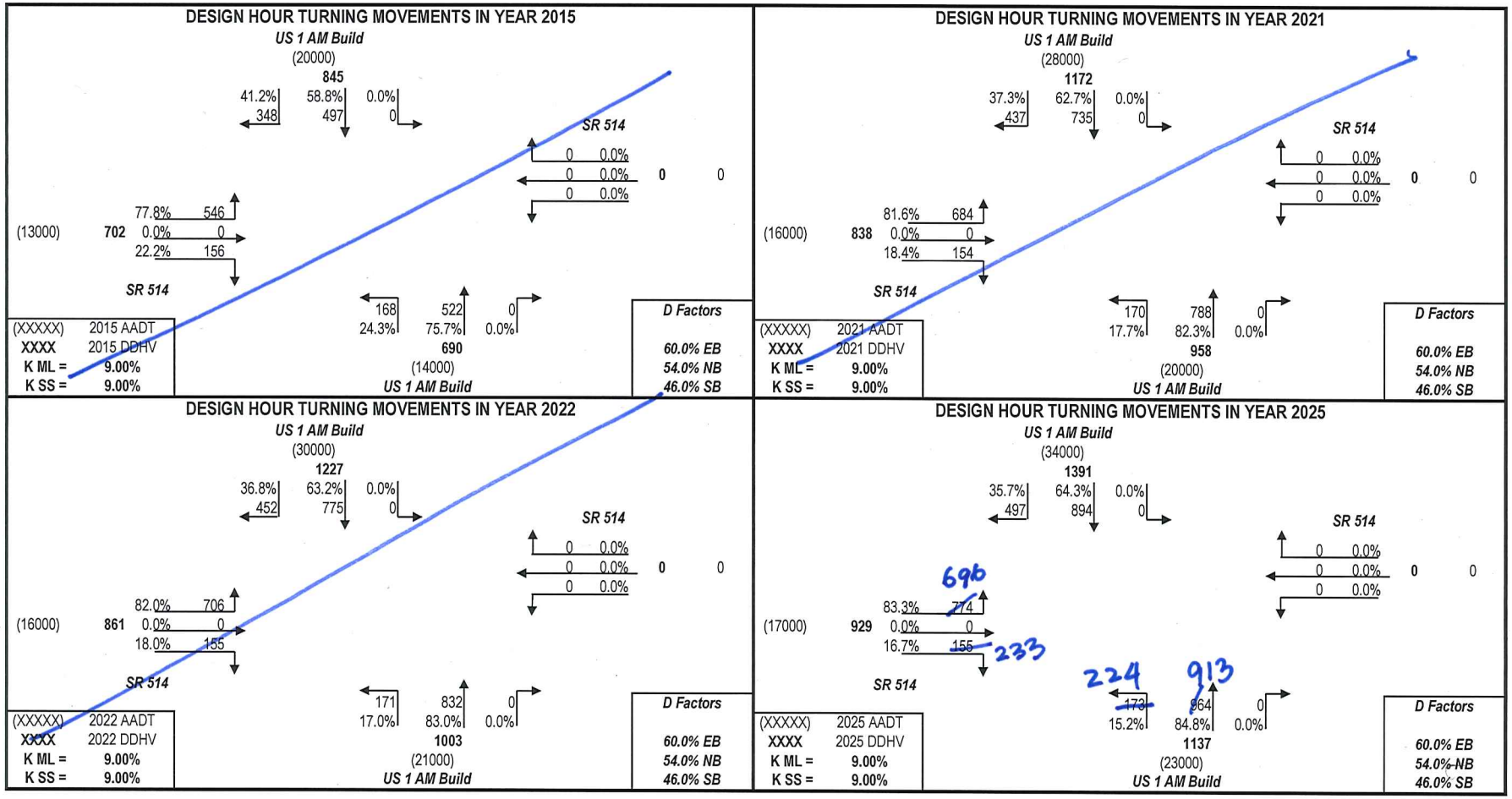
Desired Closure: 0.50

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 11-Mar-15
Highway: SR 514
Intersection: US 1 PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	Mainline
Westbound (WB)	0.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	46.0%
Southbound (SB)	54.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	13000	0	20400	14200	47600
2025	17200	0	33600	23400	74200

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	60.0%	278	Existing Year AADTs
(EB THRU)	*West-to-East*	0.0%	0	
(EB RT)	*West-to-South*	40.0%	185	
(WB LT)	*East-to-South*	0.0%	0	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	0.0%	0	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	
(SB THRU)	*North-to-South*	50.3%	655	
(SB RT)	*North-to-West*	49.7%	648	
(NB LT)	*South-to-West*	37.1%	327	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	62.9%	555	
(NB RT)	*South-to-East*	0.0%	0	

Desired Closure: 5.00

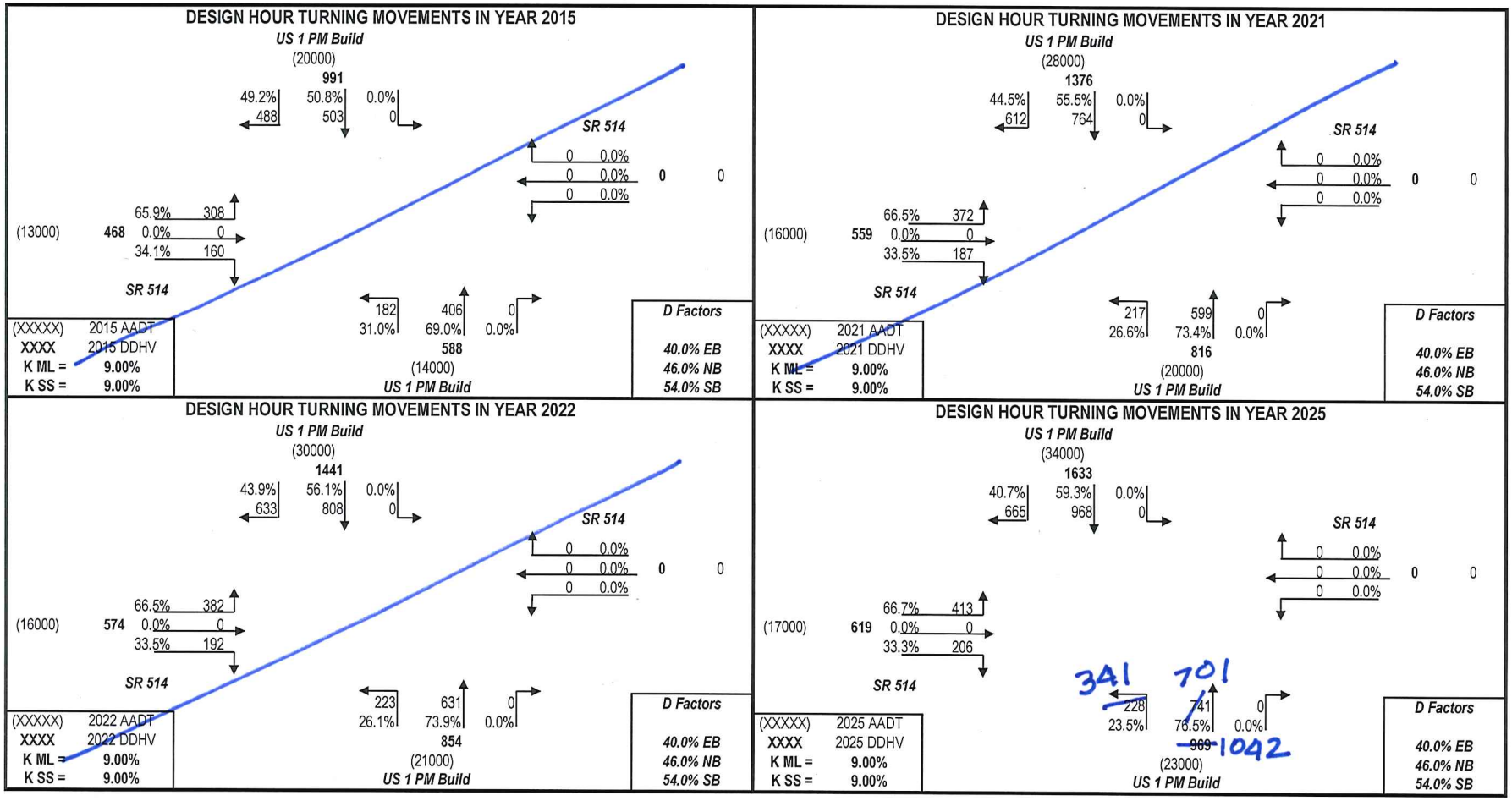
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 PM Build



701
701 * .06 = 42
659

2045 B

TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- (●) EB, WB, and SB
- ( ) EB, WB, and NB
- ( ) EB, SB, and NB
- ( ) WB, SB, and NB

Analyst:	-
Date:	12-Mar-15
Highway:	SR 514
Intersection:	Medplex Pkwy AM Build
Project:	SR514 DTTM Update
County:	Brevard

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	34.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

(●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function

(●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function

(●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:

(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	***TOTAL***
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:

(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	***TOTAL***
2015	18500	16400	2500	0	37400
2045	31100	29300	2500	0	62900

First Guess Turning % Option Used
Existing Turning Movement Counts

		1st Guess Turning %'s for AADT Balancing	**Actual/Counted Traffic for 2015**
(EB LT)	*West-to-North*	11.1%	98
(EB THRU)	*West-to-East*	88.9%	787
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	98.4%	635
(WB RT)	*East-to-North*	1.6%	10
(SB LT)	*North-to-East*	7.0%	3
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	93.0%	40
(NB LT)	*South-to-West*	0.0%	0
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 1.50

Existing Year AADTs

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

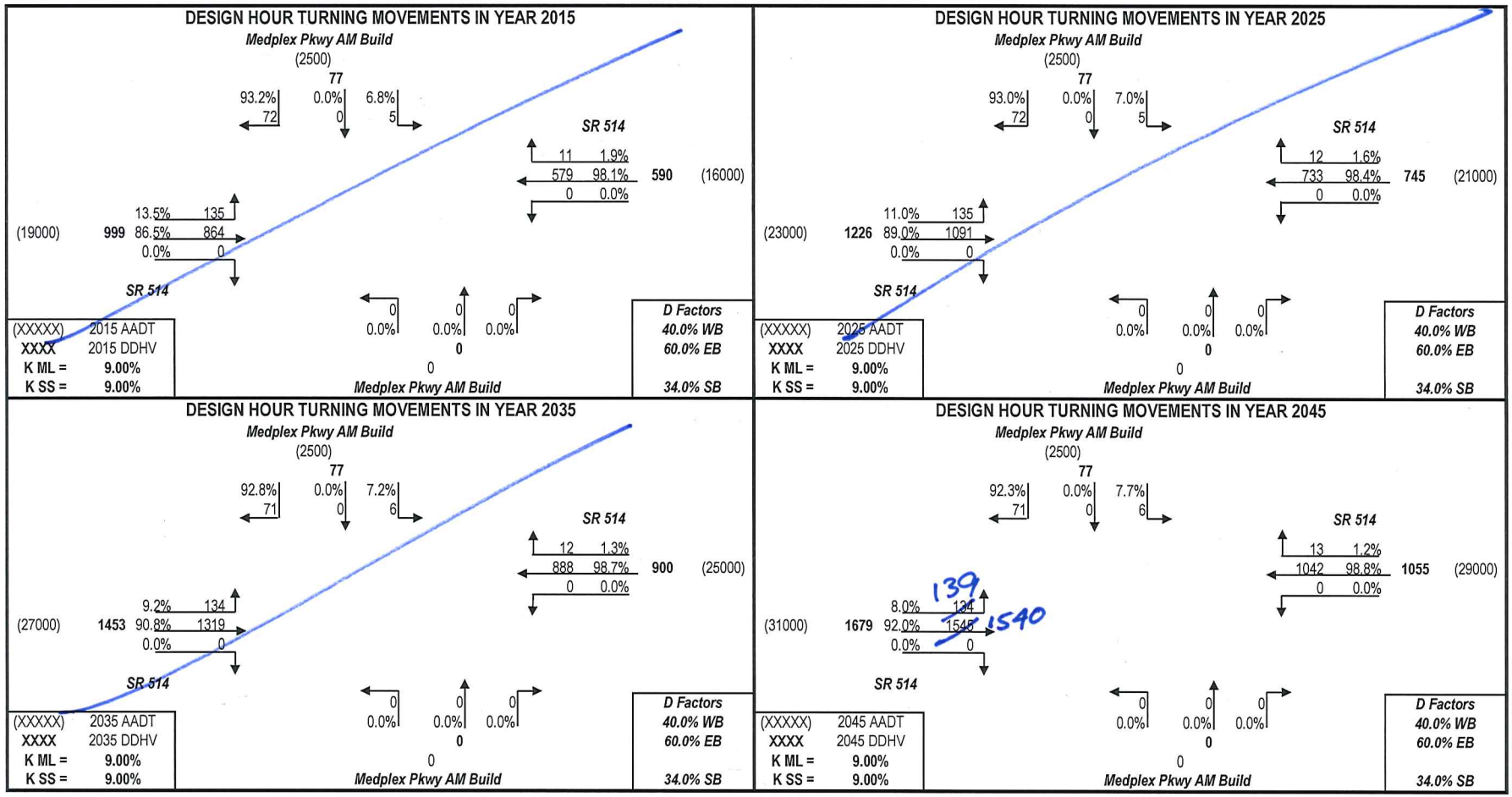
Existing Turning Movement Counts

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Medplex Pkwy PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

- ◉ EB, WB, and SB
- ○ EB, WB, and NB
- ○ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	
	Mainline
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	0.0%
Southbound (SB)	66.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	18500	16400	2500	0	37400
2045	31100	29300	2500	0	62900

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	5.8%	43
(EB THRU)	*West-to-East*	94.2%	695
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	99.1%	864
(WB RT)	*East-to-North*	0.9%	8
(SB LT)	*North-to-East*	5.9%	6
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	94.1%	96
(NB LT)	*South-to-West*	0.0%	0
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 1.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

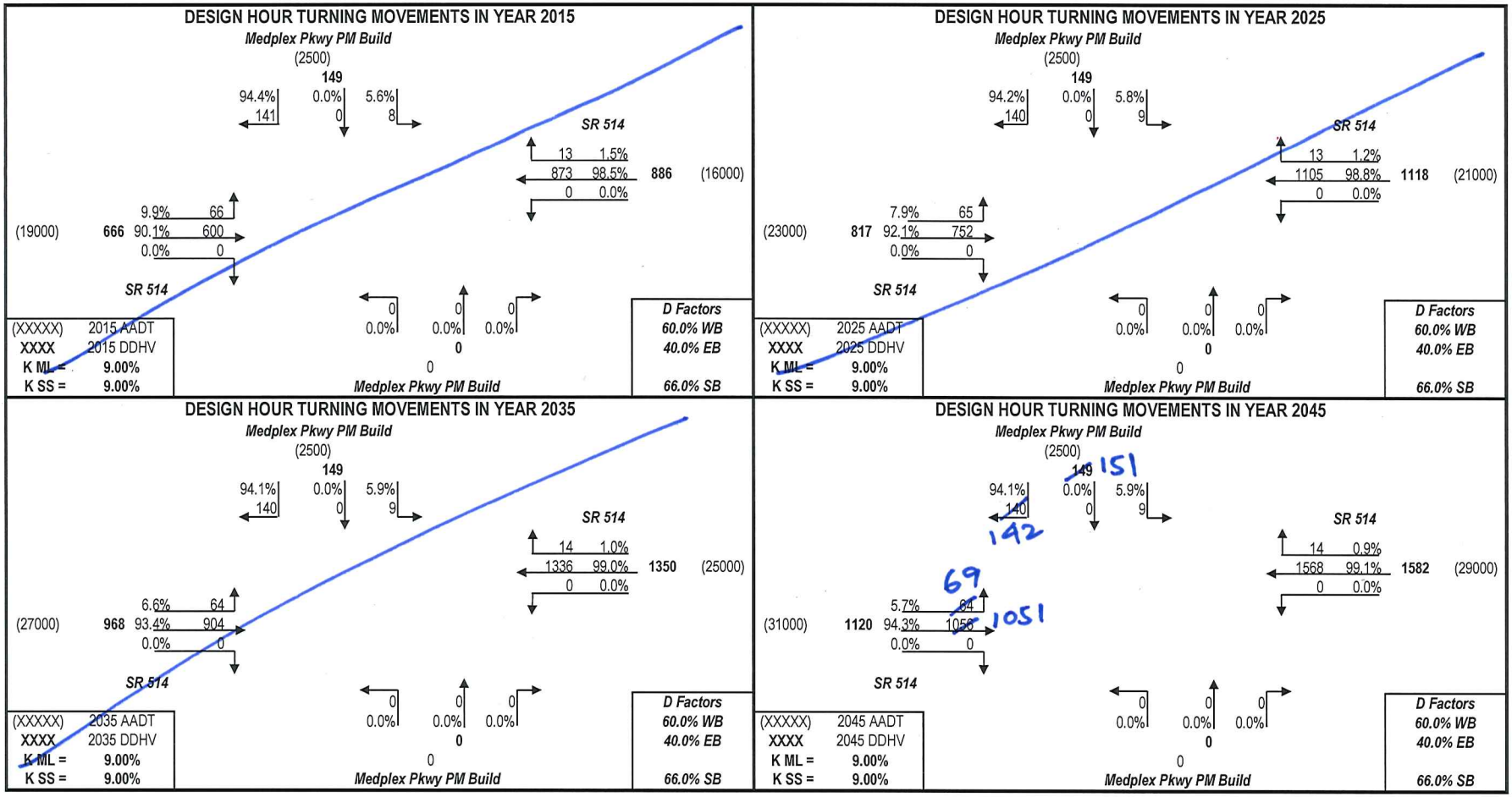
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Weber Road AM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

○ EB, WB, and SB
◉ EB, WB, and NB
○ EB, SB, and NB
○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?: ○ Yes ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	
Mainline	
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
Side street	
Northbound (NB)	61.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: ◉ Yes ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: ◉ Linear ○ Exponential ○ Decaying

Side Street Growth Function: ◉ Linear ○ Exponential ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2045	29300	25900	0	7500	62700

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015	
(EB LT)	*West-to-North*	0.0%	0	Existing Year AADTs
(EB THRU)	*West-to-East*	91.8%	693	
(EB RT)	*West-to-South*	8.2%	62	
(WB LT)	*East-to-South*	2.4%	13	Existing Turning Movement Counts
(WB THRU)	*East-to-West*	97.6%	530	
(WB RT)	*East-to-North*	0.0%	0	
(SB LT)	*North-to-East*	0.0%	0	
(SB THRU)	*North-to-South*	0.0%	0	
(SB RT)	*North-to-West*	0.0%	0	
(NB LT)	*South-to-West*	84.3%	145	FSUTMS Model Year AADTs
(NB THRU)	*South-to-North*	0.0%	0	
(NB RT)	*South-to-East*	15.7%	27	

Desired Closure: 1.00

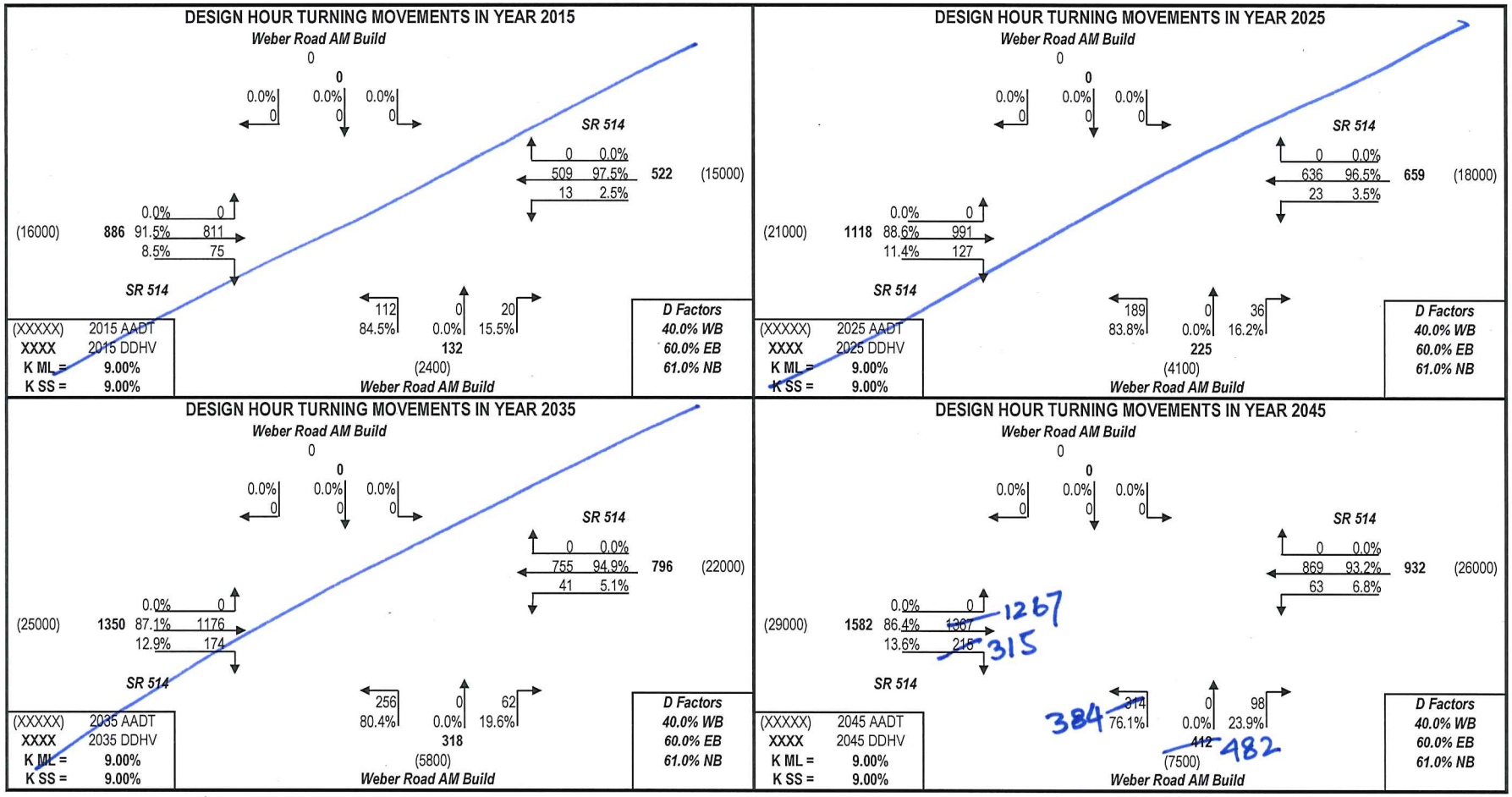
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 12-Mar-15
Highway: SR 514
Intersection: Weber Road PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

○ EB, WB, and SB
◉ EB, WB, and NB
○ EB, SB, and NB
○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
○ Yes
◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	39.0%
Southbound (SB)	0.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
◉ Yes
○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
◉ Linear
○ Exponential
○ Decaying

Side Street Growth Function
◉ Linear
○ Exponential
○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	16400	14500	0	2400	33300
2045	29300	25900	0	7500	62700

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.0%	0
(EB THRU)	*West-to-East*	75.7%	520
(EB RT)	*West-to-South*	24.3%	167
(WB LT)	*East-to-South*	4.3%	37
(WB THRU)	*East-to-West*	95.7%	821
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	0.0%	0
(NB LT)	*South-to-West*	80.2%	85
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	19.8%	21

Desired Closure: 1.00

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

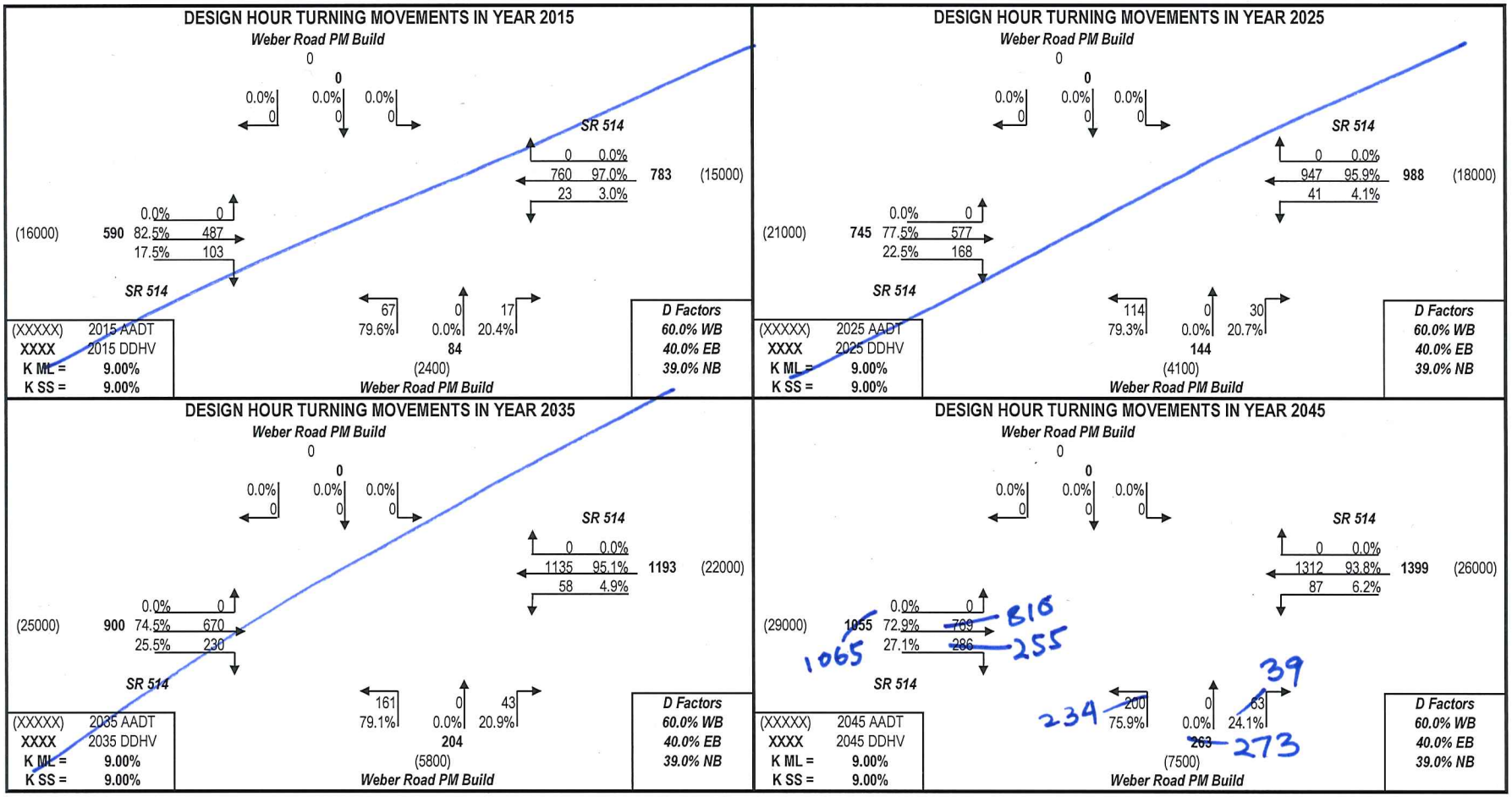
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Weber Road PM Build



TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Analyst:	-
Date:	12-Mar-15
Highway:	SR 514
Intersection:	Corey Road AM Build
Project:	SR514 DTTM Update
County:	Brevard

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	63.0%
Southbound (SB)	37.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East:* WB Approach	*From North:* SB Approach	*From South:* NB Approach	*TOTAL*
2015	14500	12500	700	2200	29900
2045	25900	22800	1400	4600	54700

		1st Guess Turning %'s for AADT Balancing	**Actual/Counted Traffic for 2015**
(EB LT)	*West-to-North*	2.9%	22
(EB THRU)	*West-to-East*	93.2%	698
(EB RT)	*West-to-South*	3.9%	29
(WB LT)	*East-to-South*	2.6%	10
(WB THRU)	*East-to-West*	96.6%	379
(WB RT)	*East-to-North*	0.8%	3
(SB LT)	*North-to-East*	41.4%	29
(SB THRU)	*North-to-South*	11.5%	8
(SB RT)	*North-to-West*	47.1%	33
(NB LT)	*South-to-West*	50.5%	92
(NB THRU)	*South-to-North*	5.0%	9
(NB RT)	*South-to-East*	44.5%	81

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

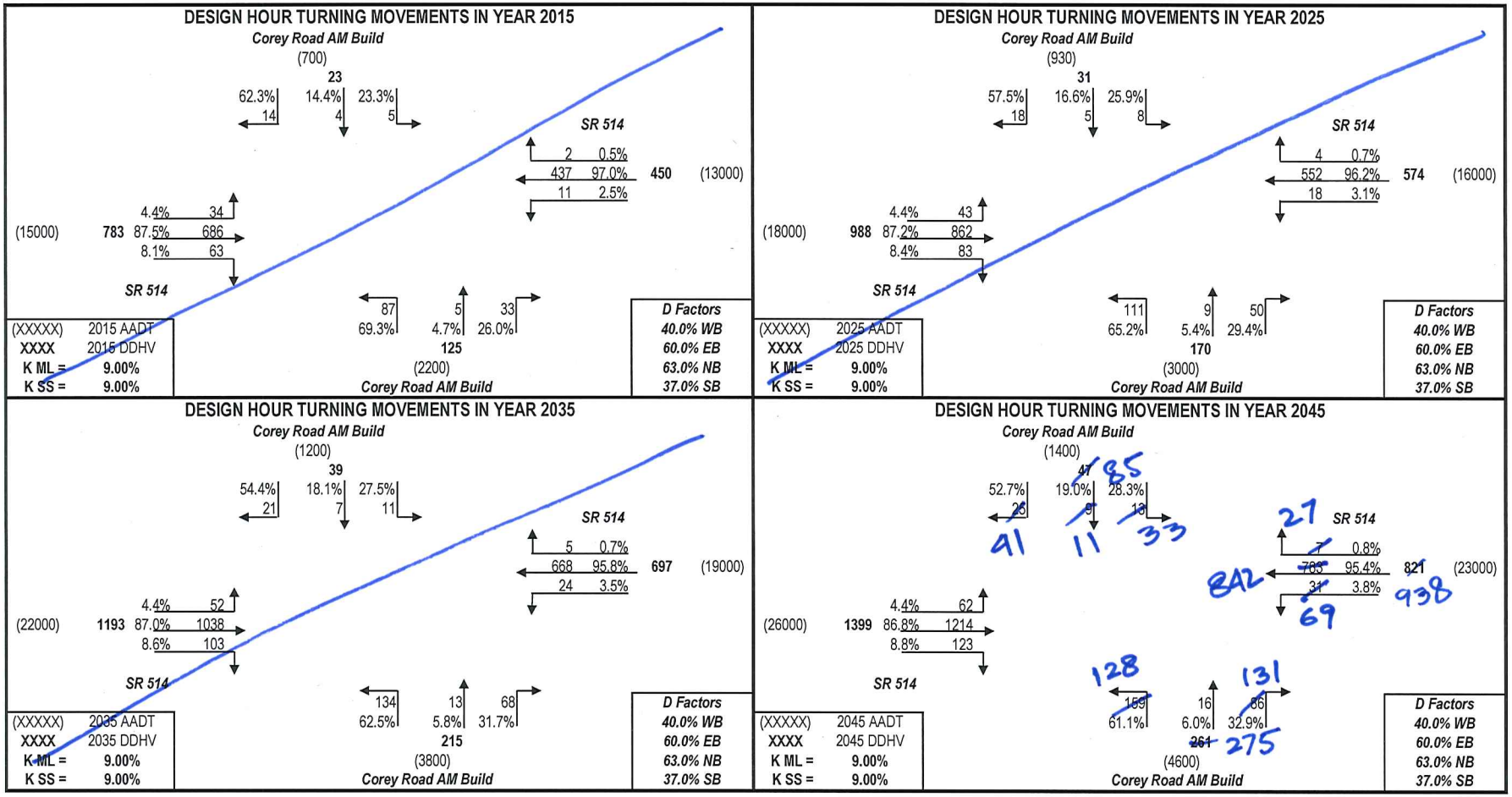
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road AM Build



TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: Corey Road PM Build
Project: SR514 DTTM Update
County: Brevard

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	37.0%
Southbound (SB)	63.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: EB Approach	*From East: WB Approach*	*From North: SB Approach*	*From South: NB Approach*	*TOTAL*
2015	14500	12500	700	2200	29900
2045	25900	22800	1400	4600	54700

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	3.8%	23
(EB THRU)	*West-to-East*	84.8%	507
(EB RT)	*West-to-South*	11.4%	68
(WB LT)	*East-to-South*	5.6%	50
(WB THRU)	*East-to-West*	90.9%	816
(WB RT)	*East-to-North*	3.5%	31
(SB LT)	*North-to-East*	32.3%	10
(SB THRU)	*North-to-South*	16.1%	5
(SB RT)	*North-to-West*	51.6%	16
(NB LT)	*South-to-West*	56.2%	41
(NB THRU)	*South-to-North*	5.4%	4
(NB RT)	*South-to-East*	38.4%	28

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

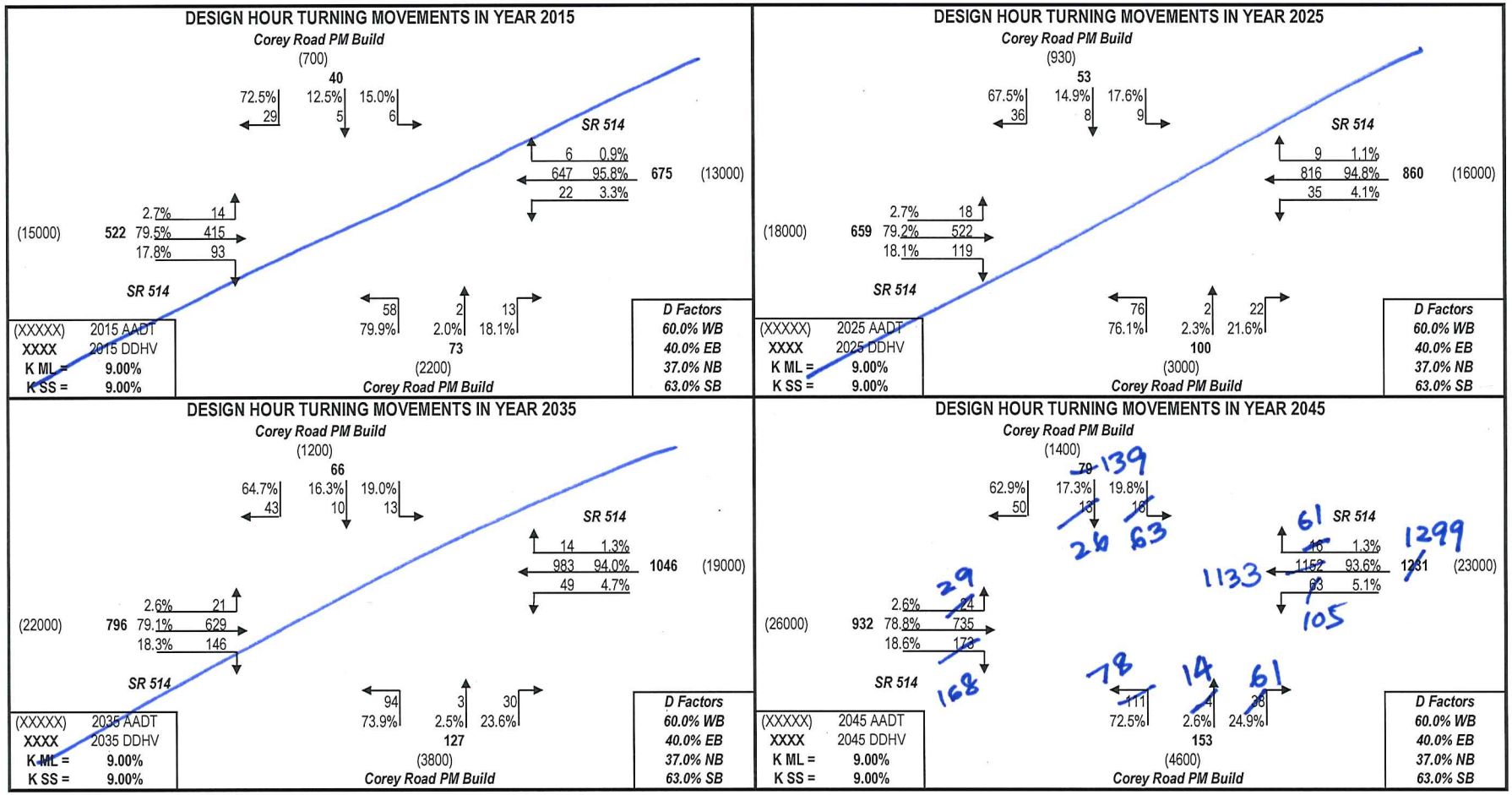
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Corey Road PM Build



TURNS5 ANALYSIS SHEET - INPUT

Is this a 4 way intersection?

Analyst:
Date: 4-Mar-15
Highway: SR 514
Intersection: Marie Street AM Build
Project: SR514 DTTM Update
County: Brevard

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	40.0%
Eastbound (EB)	60.0%
	Side street
Northbound (NB)	60.0%
Southbound (SB)	40.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

(●) Yes
( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function

(●) Linear
( ) Exponential
( ) Decaying

Side Street Growth Function

(●) Linear
( ) Exponential
( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	12500	13000	200	600	26300
2045	22800	23200	200	800	47000

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.6%	5
(EB THRU)	*West-to-East*	99.0%	790
(EB RT)	*West-to-South*	0.4%	3
(WB LT)	*East-to-South*	0.9%	4
(WB THRU)	*East-to-West*	98.9%	420
(WB RT)	*East-to-North*	0.2%	1
(SB LT)	*North-to-East*	33.3%	3
(SB THRU)	*North-to-South*	0.0%	0
(SB RT)	*North-to-West*	66.7%	6
(NB LT)	*South-to-West*	7.7%	3
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	92.3%	36

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

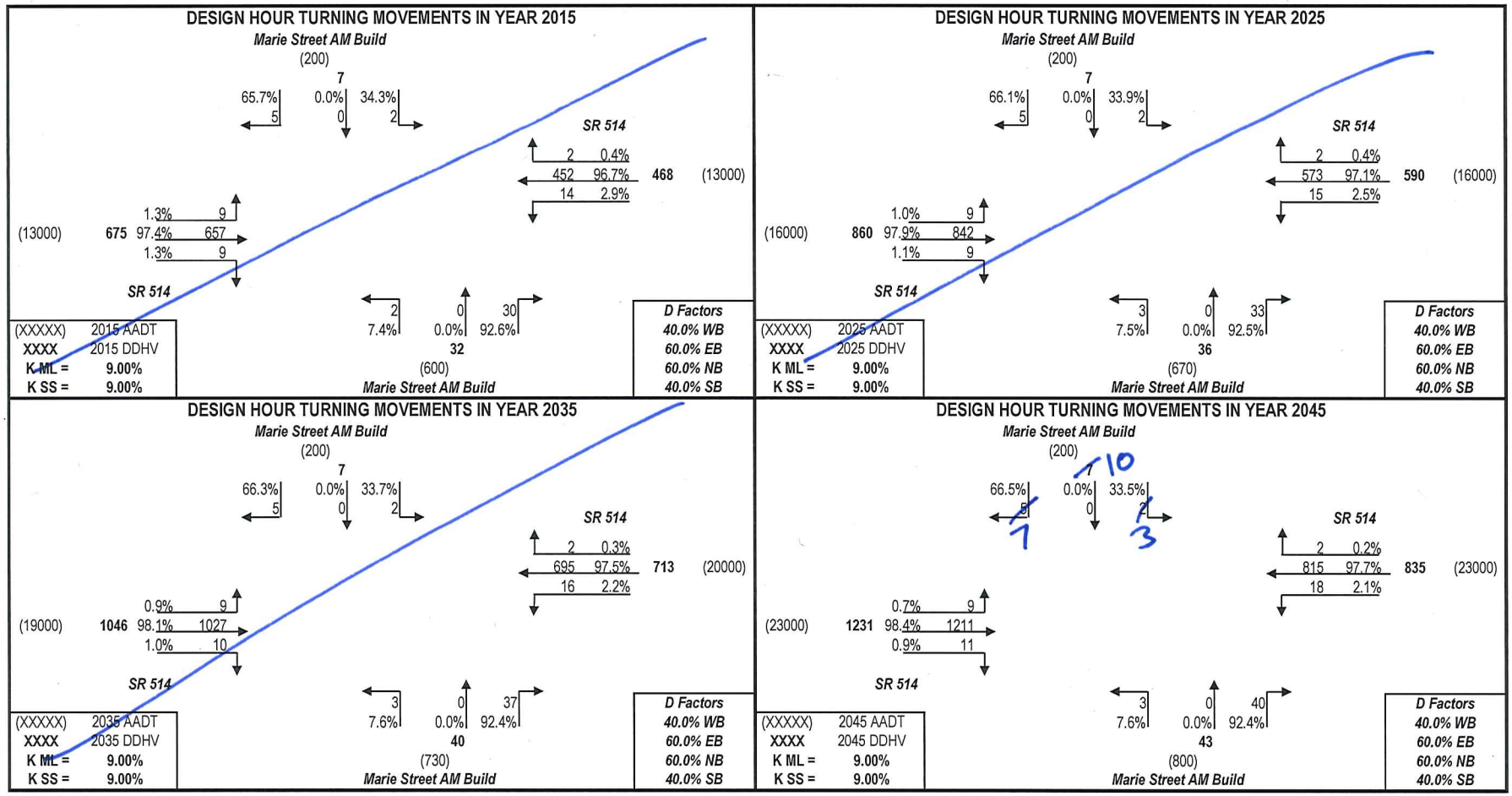
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 12-Mar-15
Highway: SR 514
Intersection: Marie Street PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?

(●) Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

( ) EB, WB, and SB
( ) EB, WB, and NB
( ) EB, SB, and NB
( ) WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South? ( ) Yes (●) No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	60.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	40.0%
Southbound (SB)	60.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No: (●) Yes ( ) No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	*Rate* (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Side Street Growth Function: (●) Linear ( ) Exponential ( ) Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	12500	13000	200	600	26300
2045	22800	23200	200	800	47000

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	0.2%	1
(EB THRU)	*West-to-East*	99.8%	533
(EB RT)	*West-to-South*	0.0%	0
(WB LT)	*East-to-South*	2.6%	24
(WB THRU)	*East-to-West*	96.7%	910
(WB RT)	*East-to-North*	0.7%	7
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	20.0%	1
(SB RT)	*North-to-West*	80.0%	4
(NB LT)	*South-to-West*	32.1%	9
(NB THRU)	*South-to-North*	0.0%	0
(NB RT)	*South-to-East*	67.9%	19

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

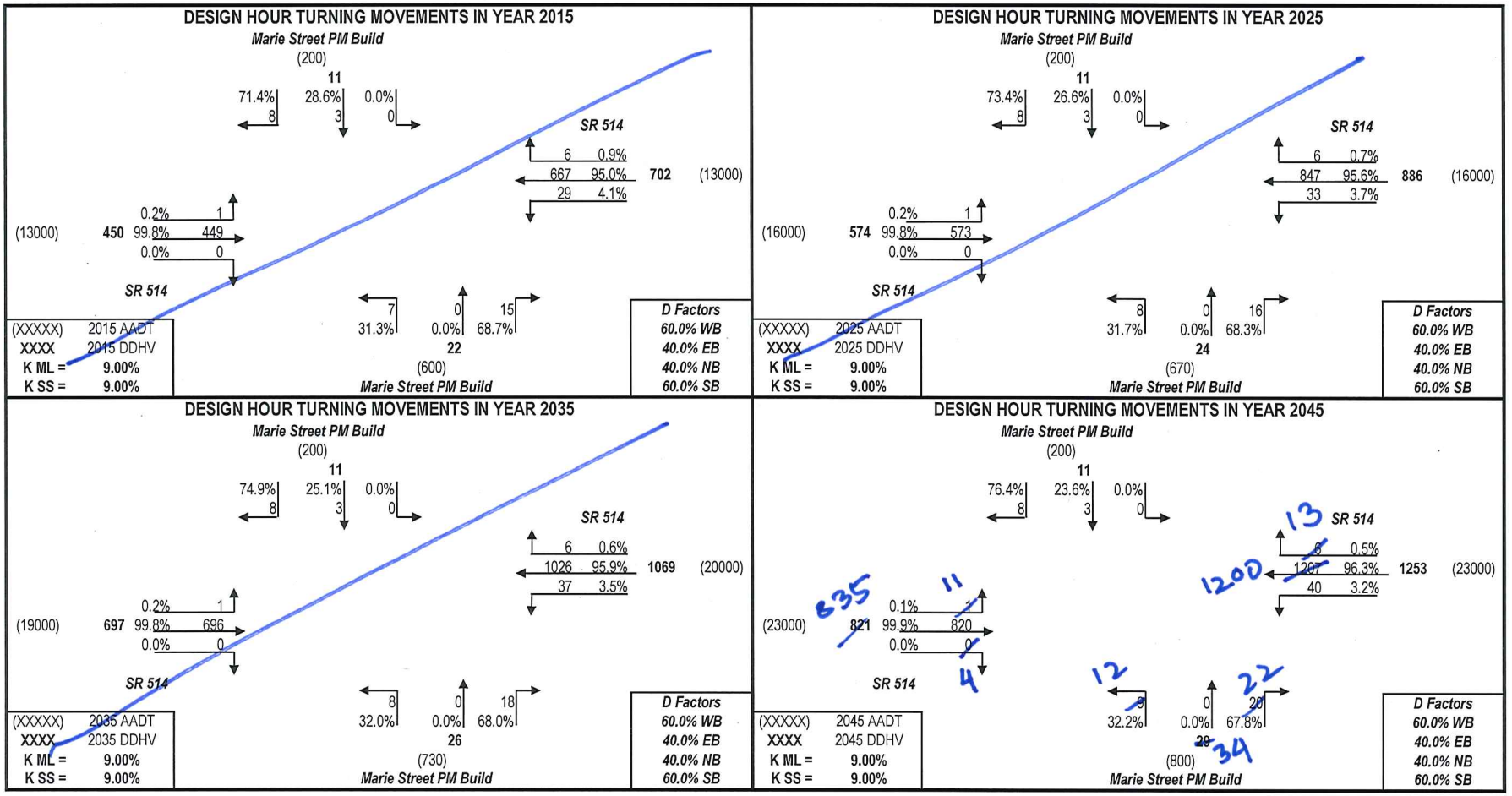
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT Marie Street PM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst: -
Date: 12-Mar-15
Highway: SR 514
Intersection: US 1 AM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No
Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	
Mainline	9.00%
Side street	9.00%

D Factors	
Mainline	
Westbound (WB)	0.0%
Eastbound (EB)	60.0%
Side street	
Northbound (NB)	54.0%
Southbound (SB)	46.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Rate (1.0% = 0.01)

	Year	Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	13000	0	20400	14200	47600
2045	23200	0	48600	36800	108600

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	74.0%	623
(EB THRU)	*West-to-East*	0.0%	0
(EB RT)	*West-to-South*	26.0%	219
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	0.0%	0
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	63.2%	355
(SB RT)	*North-to-West*	36.8%	207
(NB LT)	*South-to-West*	24.7%	208
(NB THRU)	*South-to-North*	75.3%	633
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 0.50

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

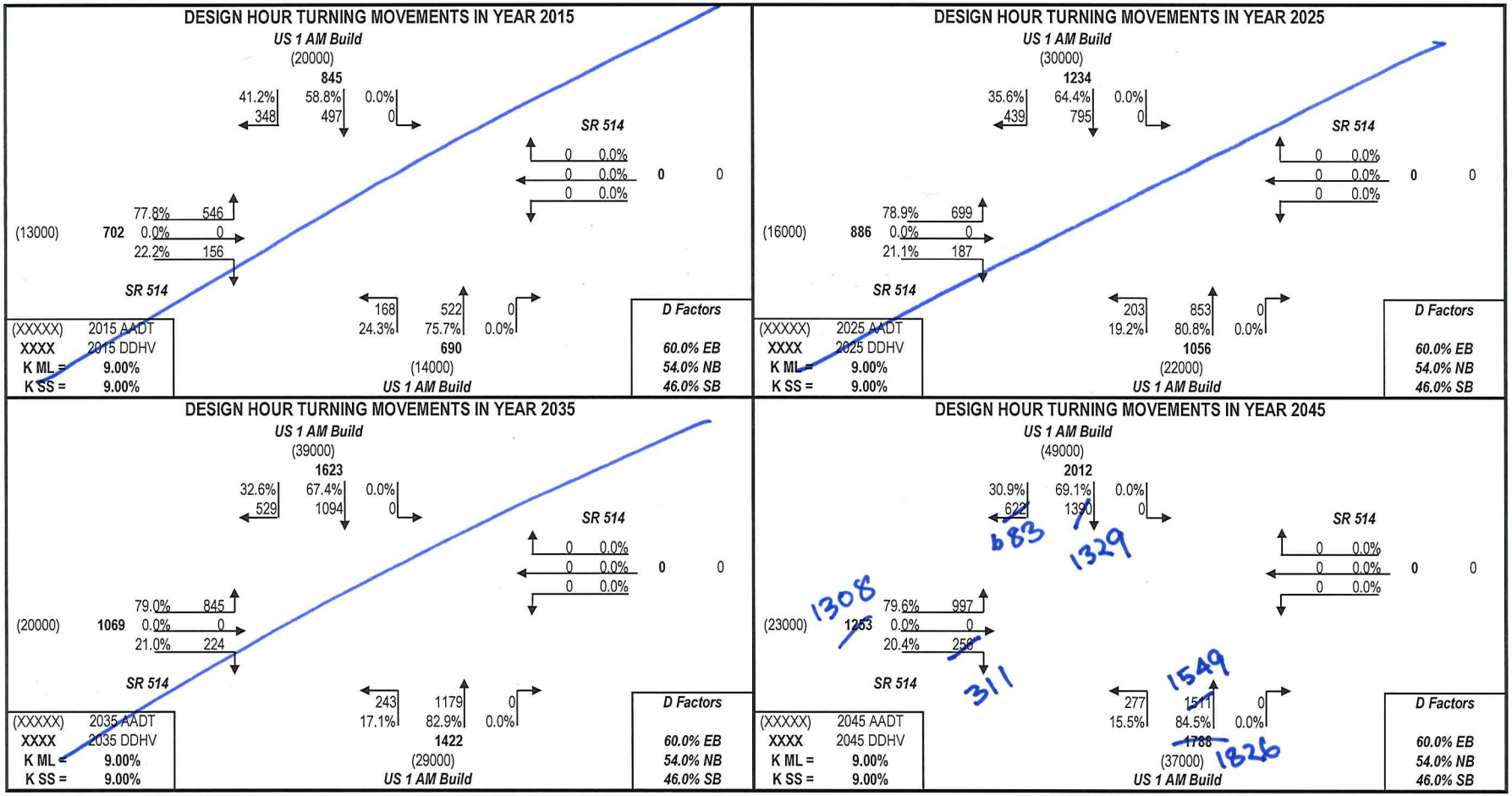
First Guess Turning % Option Used
Existing Turning Movement Counts

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 AM Build



TURNS5 ANALYSIS SHEET - INPUT

Analyst:
Date: 12-Mar-15
Highway: SR 514
Intersection: US 1 PM Build
Project: SR514 DTTM Update
County: Brevard

Is this a 4 way intersection?
- ○ Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?
- ○ EB, WB, and SB
- ○ EB, WB, and NB
- ◉ EB, SB, and NB
- ○ WB, SB, and NB

Enter Yes or No

Is the Mainline Oriented North/South?
- ○ Yes
- ◉ No

K Factors	Mainline
	9.00%
	Side street
	9.00%

D Factors	*Mainline*
Westbound (WB)	0.0%
Eastbound (EB)	40.0%
	Side street
Northbound (NB)	46.0%
Southbound (SB)	54.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No
- ◉ Yes
- ○ No

If "Yes" go to cell C47 — If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01) Mainline	Side Street
Base	2015		
Opening	2025		
Mid	2035	0.00%	0.00%
Design	2045		

Mainline Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Side Street Growth Function
- ◉ Linear
- ○ Exponential
- ○ Decaying

Enter Base Year AADTs for Volume Comparison:
(growth rates are used to calculate other project years)

From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
0	0	0	0	0

Enter Project and Model Years

	Year
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:
(volumes for other project years are calculated by interpolation)

	From West: *EB Approach*	*From East:* *WB Approach*	*From North:* *SB Approach*	*From South:* *NB Approach*	*TOTAL*
2015	13000	0	20400	14200	47600
2045	23200	0	48600	36800	108600

		1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015
(EB LT)	*West-to-North*	60.0%	278
(EB THRU)	*West-to-East*	0.0%	0
(EB RT)	*West-to-South*	40.0%	185
(WB LT)	*East-to-South*	0.0%	0
(WB THRU)	*East-to-West*	0.0%	0
(WB RT)	*East-to-North*	0.0%	0
(SB LT)	*North-to-East*	0.0%	0
(SB THRU)	*North-to-South*	50.3%	655
(SB RT)	*North-to-West*	49.7%	648
(NB LT)	*South-to-West*	37.1%	327
(NB THRU)	*South-to-North*	62.9%	555
(NB RT)	*South-to-East*	0.0%	0

Desired Closure: 5.00

First Guess Turning % Option Used
Existing Turning Movement Counts

Existing Year AADTs

Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

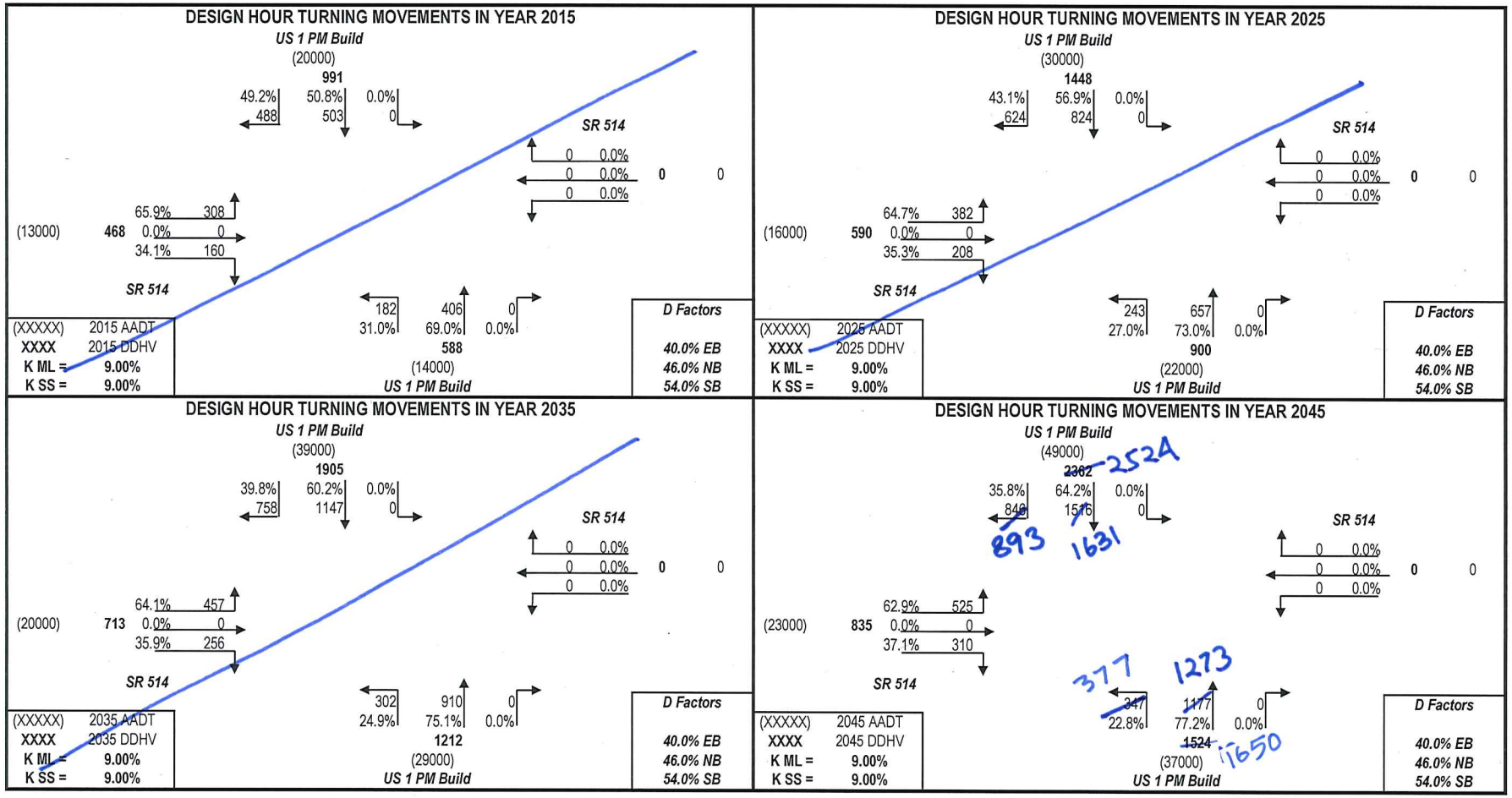
Existing Turning Movement Counts

The turning percentages first guess is the same as the ***actual distribution of turning volumes entered***. No balancing technique is used.

FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

PROJECT TRAFFIC FOR SR 514 AT US 1 PM Build



Appendix L

Signal Warrant Analysis Sheets

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Town of Malabar** Engineer: **-**
County: **Brevard** Date: **March 10, 2015**

Major Street: **SR 514 No-build** Lanes: **1** Critical Approach Speed: **55mph**
Minor Street: **Weber Road** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☒ Yes ☐ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.
Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.

Condition A - Minimum Vehicular Volume

100% Satisfied: ☐ Yes ☒ No
80% Satisfied: ☒ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	3:00 PM -	7:00 AM -	2:00 PM -	1:00 PM -	8:00 AM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	1,738	1,587	1,432	1,392	1,242	1,219	1,215	1,184
Highest Approach on Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	131	129	104	299	104	98	210	135

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.

Applicable: ☒ Yes ☐ No
Excessive Delay: ☐ Yes ☒ No
100% Satisfied: ☒ Yes ☐ No
80% Satisfied: ☒ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	3:00 PM -	7:00 AM -	2:00 PM -	1:00 PM -	8:00 AM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	1,738	1,587	1,432	1,392	1,242	1,219	1,215	1,184
Highest Approach on Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	131	129	104	299	104	98	210	135

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Town of Malabar** Engineer: **-**
County: **Brevard** Date: **March 10, 2015**

Major Street: **SR 514 No-build** Lanes: **1** Critical Approach Speed: **55mph**
Minor Street: **Corey Road** Lanes: **1**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☒ Yes ☐ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.
Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.

Condition A - Minimum Vehicular Volume

100% Satisfied: ☐ Yes ☒ No
80% Satisfied: ☐ Yes ☒ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	7:00 AM -	3:00 PM -	8:00 AM -	2:00 PM -	1:00 PM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	500 (400)	**350 (280)**	600 (480)	420 (336)	1,474	1,398	1,249	1,213	1,104	1,093	1,000	958
Highest Approach on Minor Street	150 (120)	**105 (84)**	200 (160)	140 (112)	84	71	219	84	169	96	93	103

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.

Applicable: ☒ Yes ☐ No
Excessive Delay: ☐ Yes ☒ No
100% Satisfied: ☒ Yes ☐ No
80% Satisfied: ☒ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	7:00 AM -	3:00 PM -	8:00 AM -	2:00 PM -	1:00 PM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	750 (600)	**525 (420)**	900 (720)	630 (504)	1,474	1,398	1,249	1,213	1,104	1,093	1,000	958
Highest Approach on Minor Street	75 (60)	**53 (42)**	100 (80)	70 (56)	84	71	219	84	169	96	93	103

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Town of Malabar** Engineer: **-**
County: **Brevard** Date: **March 10, 2015**

Major Street: **SR 514 Build** Lanes: **2** Critical Approach Speed: **55mph**
Minor Street: **Weber Road** Lanes: **2**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☒ Yes ☐ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.
Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.

Condition A - Minimum Vehicular Volume

100% Satisfied: ☐ Yes ☒ No
80% Satisfied: ☐ Yes ☒ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	3:00 PM -	7:00 AM -	2:00 PM -	1:00 PM -	8:00 AM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	500 (400)	350 (280)	600 (480)	**420** (336)	1,939	1,769	1,597	1,551	1,385	1,360	1,355	1,321
Highest Approach on Minor Street	150 (120)	105 (84)	200 (160)	**140** (112)	131	129	104	299	104	98	210	135

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.

Applicable: ☒ Yes ☐ No
Excessive Delay: ☐ Yes ☒ No
100% Satisfied: ☒ Yes ☐ No
80% Satisfied: ☒ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	3:00 PM -	7:00 AM -	2:00 PM -	1:00 PM -	8:00 AM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	750 (600)	525 (420)	900 (720)	**630** (504)	1,939	1,769	1,597	1,551	1,385	1,360	1,355	1,321
Highest Approach on Minor Street	75 (60)	53 (42)	100 (80)	**70** (56)	131	129	104	299	104	98	210	135

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Source: Revised from NCHRP Report 457

TRAFFIC SIGNAL WARRANT SUMMARY

City: **Town of Malabar** Engineer: **-**
County: **Brevard** Date: **March 10, 2015**

Major Street: **SR 514 Build** Lanes: **2** Critical Approach Speed: **55mph**
Minor Street: **Corey Road** Lanes: **2**

Volume Level Criteria

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ? ☒ Yes ☐ No
2. Is the intersection in a built-up area of isolated community of <10,000 population? ☐ Yes ☒ No

If Question 1 or 2 above is answered "Yes", then use "70%" volume level ☒ 70% ☐ 100%

WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

Applicable: ☒ Yes ☐ No
Satisfied: ☐ Yes ☒ No

Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.
Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.

Condition A - Minimum Vehicular Volume

100% Satisfied: ☐ Yes ☒ No
80% Satisfied: ☐ Yes ☒ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	7:00 AM -	3:00 PM -	8:00 AM -	2:00 PM -	1:00 PM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	500 (400)	350 (280)	600 (480)	**420 (336)**	1,656	1,568	1,399	1,361	1,238	1,225	1,122	1,075
Highest Approach on Minor Street	150 (120)	105 (84)	200 (160)	**140 (112)**	84	71	219	84	169	96	93	103

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Condition B - Interruption of Continuous Traffic

Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.

Applicable: ☒ Yes ☐ No
Excessive Delay: ☐ Yes ☒ No
100% Satisfied: ☒ Yes ☐ No
80% Satisfied: ☒ Yes ☐ No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
Approach Lanes	1		2 or more		5:00 PM -	4:00 PM -	7:00 AM -	3:00 PM -	8:00 AM -	2:00 PM -	1:00 PM -	12:00 PM -
Volume Level	100%	70%	100%	70%								
Both Approaches on Major Street	750 (600)	525 (420)	900 (720)	**630 (504)**	1,656	1,568	1,399	1,361	1,238	1,225	1,122	1,075
Highest Approach on Minor Street	75 (60)	53 (42)	100 (80)	**70 (56)**	84	71	219	84	169	96	93	103

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Source: Revised from NCHRP Report 457

Appendix M

Synchro Output Sheets - No Build Alternative

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	112	1063	757	11	5	72
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	5
Mvmt Flow	122	1155	823	12	5	78

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	823	0	-	0	2222	823
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	1399	-
Critical Hdwy	4.14	-	-	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.345
Pot Cap-1 Maneuver	798	-	-	-	48	369
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	231	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	798	-	-	-	41	369
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	435	-
Stage 2	-	-	-	-	196	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	18.3
HCM LOS			C

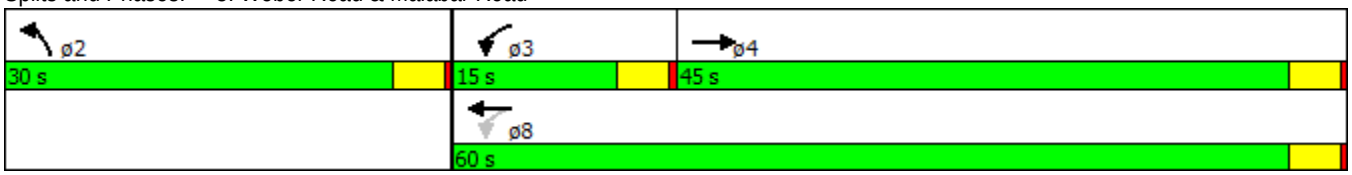
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	798	-	-	-	139	369
HCM Lane V/C Ratio	0.153	-	-	-	0.039	0.212
HCM Control Delay (s)	10.3	-	-	-	32	17.4
HCM Lane LOS	B	-	-	-	D	C
HCM 95th %tile Q(veh)	0.5	-	-	-	0.1	0.8

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	881	167	34	582	211	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	255		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1787	0	1736	1827	1751	0
Flt Permitted			0.087		0.962	
Satd. Flow (perm)	1787	0	159	1827	1751	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	14				14	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1140	0	37	633	287	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	45.0		15.0	60.0	30.0	
Total Split (%)	50.0%		16.7%	66.7%	33.3%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Min	
Act Effct Green (s)	41.9		47.6	47.6	16.4	
Actuated g/C Ratio	0.58		0.66	0.66	0.23	
v/c Ratio	1.09		0.15	0.53	0.70	
Control Delay	77.9		6.9	9.2	34.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	77.9		6.9	9.2	34.6	
LOS	E		A	A	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	77.9			9.1	34.6	
Approach LOS	E			A	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 72.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 50.0		Intersection LOS: D	
Intersection Capacity Utilization 78.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road

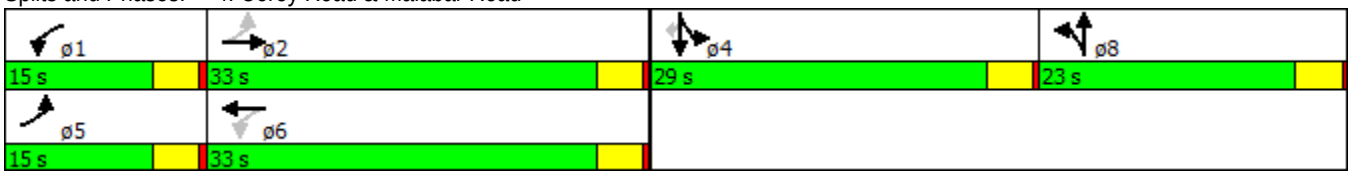


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	796	84	45	493	15	93	11	84	31	9	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1797	0	1736	1820	0	0	1715	0	0	1830	1615
Flt Permitted	0.253			0.134				0.976			0.963	
Satd. Flow (perm)	462	1797	0	245	1820	0	0	1715	0	0	1830	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			36				98
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	956	0	49	552	0	0	204	0	0	44	41
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	15.0	33.0		15.0	33.0		23.0	23.0		29.0	29.0	29.0
Total Split (%)	15.0%	33.0%		15.0%	33.0%		23.0%	23.0%		29.0%	29.0%	29.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	33.6	29.8		33.6	29.8			12.1			7.3	7.3
Actuated g/C Ratio	0.50	0.44		0.50	0.44			0.18			0.11	0.11
v/c Ratio	0.13	1.20		0.18	0.69			0.61			0.22	0.16
Control Delay	9.9	126.6		10.6	24.2			29.9			33.7	1.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	9.9	126.6		10.6	24.2			29.9			33.7	1.3
LOS	A	F		B	C			C			C	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		121.2			23.1			29.9			18.1	
Approach LOS		F			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 67.5			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 75.6		Intersection LOS: E	
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	872	10	16	626	2	3	1	36	3	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	0	0	0
Mvmt Flow	10	948	11	17	680	2	3	1	39	3	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	683	0	0	959	0	0	1693	1690	953	1709	1694	682
Stage 1	-	-	-	-	-	-	973	973	-	716	716	-
Stage 2	-	-	-	-	-	-	720	717	-	993	978	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	901	-	-	709	-	-	74	94	317	73	94	453
Stage 1	-	-	-	-	-	-	306	333	-	424	437	-
Stage 2	-	-	-	-	-	-	422	437	-	298	331	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	901	-	-	709	-	-	69	88	317	60	88	453
Mov Cap-2 Maneuver	-	-	-	-	-	-	69	88	-	60	88	-
Stage 1	-	-	-	-	-	-	299	325	-	414	420	-
Stage 2	-	-	-	-	-	-	399	420	-	254	323	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	23.5	34.2
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	238	901	-	-	709	-	-	134
HCM Lane V/C Ratio	0.183	0.011	-	-	0.025	-	-	0.081
HCM Control Delay (s)	23.5	9	0	-	10.2	0	-	34.2
HCM Lane LOS	C	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0.3

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	631	0	225	0	0	0	926	465	211	93	833
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509
Flt Permitted	0.950								0.151		
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1474	268	1776	1509
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			306					454			905
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	686	0	245	0	0	0	1007	505	229	101	905
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	41.0		41.0				33.5	33.5	15.5		
Total Split (%)	45.6%		45.6%				37.2%	37.2%	17.2%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	35.5		35.5				26.5	26.5	38.0	42.0	90.0
Actuated g/C Ratio	0.39		0.39				0.29	0.29	0.42	0.47	1.00
v/c Ratio	1.00		0.31				1.01	0.67	0.85	0.12	0.60
Control Delay	64.2		1.9				65.0	9.1	47.3	14.1	1.8
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	64.2		1.9				65.0	9.1	47.3	14.1	1.8
LOS	E		A				E	A	D	B	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							46.3			11.2	
Approach LOS							D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 34.9		Intersection LOS: C	
Intersection Capacity Utilization 86.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	77.9	176.6	1.14	23.2	C
Corey Road	II	55	64.9	126.6	191.5	0.99	18.6	D
US 1	II	35	170.0	1.9	171.9	1.65	34.6	B
Total	II		333.6	206.4	540.0	3.78	25.2	C

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.8	24.2	174.0	1.65	34.2	B
Weber Road	II	55	64.9	9.2	74.1	0.99	48.2	A
Total	II		214.7	33.4	248.1	2.64	38.4	A

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	69	741	1035	13	8	141
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	3
Mvmt Flow	75	805	1125	14	9	153

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1125	0	-	0	2080	1125
Stage 1	-	-	-	-	1125	-
Stage 2	-	-	-	-	955	-
Critical Hdwy	4.14	-	-	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	614	-	-	-	59	248
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	377	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	614	-	-	-	52	248
Mov Cap-2 Maneuver	-	-	-	-	171	-
Stage 1	-	-	-	-	313	-
Stage 2	-	-	-	-	331	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	39.8
HCM LOS			E

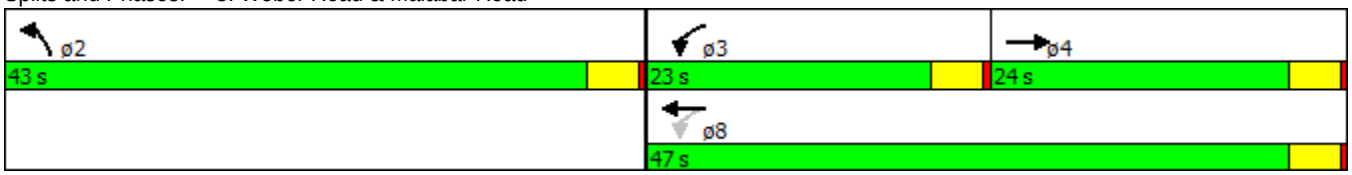
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	614	-	-	-	171	248
HCM Lane V/C Ratio	0.122	-	-	-	0.051	0.618
HCM Control Delay (s)	11.7	-	-	-	27.2	40.5
HCM Lane LOS	B	-	-	-	D	E
HCM 95th %tile Q(veh)	0.4	-	-	-	0.2	3.7

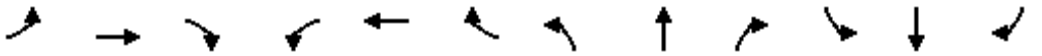
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	569	175	40	901	133	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	255		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1768	0	1736	1827	1763	0
Flt Permitted			0.186		0.962	
Satd. Flow (perm)	1768	0	340	1827	1763	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	16				18	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	808	0	43	979	183	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	24.0		23.0	47.0	43.0	
Total Split (%)	26.7%		25.6%	52.2%	47.8%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Min	
Act Effct Green (s)	39.1		43.1	43.1	11.1	
Actuated g/C Ratio	0.63		0.69	0.69	0.18	
v/c Ratio	0.72		0.12	0.77	0.56	
Control Delay	16.5		4.4	13.1	27.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	16.5		4.4	13.1	27.6	
LOS	B		A	B	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	16.5			12.7	27.6	
Approach LOS	B			B	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 62.2			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 15.6		Intersection LOS: B	
Intersection Capacity Utilization 63.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



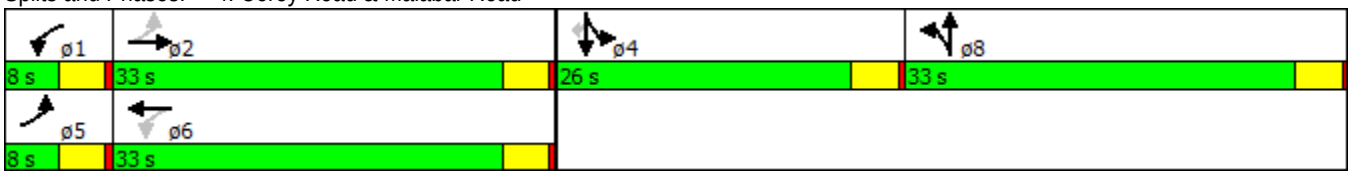


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	537	112	51	825	35	52	4	31	38	12	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1772	0	1736	1816	0	0	1728	0	0	1830	1615
Flt Permitted	0.133			0.160				0.971			0.963	
Satd. Flow (perm)	243	1772	0	292	1816	0	0	1728	0	0	1830	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			2			28				98
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	706	0	55	935	0	0	95	0	0	54	38
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	33.0		8.0	33.0		33.0	33.0		26.0	26.0	26.0
Total Split (%)	8.0%	33.0%		8.0%	33.0%		33.0%	33.0%		26.0%	26.0%	26.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	31.6	29.4		32.4	30.9			8.0			7.3	7.3
Actuated g/C Ratio	0.52	0.48		0.53	0.50			0.13			0.12	0.12
v/c Ratio	0.12	0.83		0.22	1.02			0.38			0.25	0.14
Control Delay	8.4	26.8		9.3	55.5			24.3			29.2	1.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	8.4	26.8		9.3	55.5			24.3			29.2	1.0
LOS	A	C		A	E			C			C	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		26.1			53.0			24.3			17.6	
Approach LOS		C			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 61.3			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.02			
Intersection Signal Delay: 39.5		Intersection LOS: D	
Intersection Capacity Utilization 63.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	589	1	25	951	7	9	1	19	1	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	5	0	0	0
Mvmt Flow	1	640	1	27	1034	8	10	1	21	1	3	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1041	0	0	641	0	0	1741	1739	641	1746	1735	1038
Stage 1	-	-	-	-	-	-	643	643	-	1092	1092	-
Stage 2	-	-	-	-	-	-	1098	1096	-	654	643	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	660	-	-	934	-	-	69	88	469	68	89	283
Stage 1	-	-	-	-	-	-	465	472	-	262	293	-
Stage 2	-	-	-	-	-	-	260	292	-	459	472	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	660	-	-	934	-	-	61	82	469	61	83	283
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	82	-	61	83	-
Stage 1	-	-	-	-	-	-	464	471	-	261	273	-
Stage 2	-	-	-	-	-	-	232	272	-	437	471	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.2	36.6	31.5
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	145	660	-	-	934	-	-	149
HCM Lane V/C Ratio	0.217	0.002	-	-	0.029	-	-	0.088
HCM Control Delay (s)	36.6	10.5	0	-	9	0	-	31.5
HCM Lane LOS	E	B	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	0.3

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	362	0	192	0	0	0	968	665	341	70	631
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509
Flt Permitted	0.950								0.143		
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1475	254	1776	1509
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			384					685			686
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	393	0	209	0	0	0	1052	723	371	76	686
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	25.0		25.0				35.0	35.0	20.0		
Total Split (%)	31.3%		31.3%				43.8%	43.8%	25.0%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	19.4		19.4				28.0	28.0	44.0	48.0	79.9
Actuated g/C Ratio	0.24		0.24				0.35	0.35	0.55	0.60	1.00
v/c Ratio	0.93		0.31				0.89	0.75	0.93	0.07	0.45
Control Delay	61.6		1.2				35.8	8.3	52.0	6.9	1.0
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	61.6		1.2				35.8	8.3	52.0	6.9	1.0
LOS	E		A				D	A	D	A	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							24.6			18.1	
Approach LOS							C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 79.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 25.2		Intersection LOS: C	
Intersection Capacity Utilization 79.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	16.5	115.2	1.14	35.6	A
Corey Road	II	55	64.9	26.8	91.7	0.99	38.9	A
US 1	II	35	170.0	1.2	171.2	1.65	34.8	B
Total	II		333.6	44.5	378.1	3.78	36.0	A

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.8	55.5	205.3	1.65	29.0	B
Weber Road	II	55	64.9	13.1	78.0	0.99	45.8	A
Total	II		214.7	68.6	283.3	2.64	33.6	B

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	130	1378	1158	20	15	80
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	5
Mvmt Flow	141	1498	1259	22	16	87

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1259	0	-	0	3039	1259
Stage 1	-	-	-	-	1259	-
Stage 2	-	-	-	-	1780	-
Critical Hdwy	4.14	-	-	-	6.4	6.25
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.345
Pot Cap-1 Maneuver	546	-	-	-	~ 14	205
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	150	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	546	-	-	-	~ 10	205
Mov Cap-2 Maneuver	-	-	-	-	76	-
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	111	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	39.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	546	-	-	-	76	205
HCM Lane V/C Ratio	0.259	-	-	-	0.215	0.424
HCM Control Delay (s)	13.9	-	-	-	64.9	34.9
HCM Lane LOS	B	-	-	-	F	D
HCM 95th %tile Q(veh)	1	-	-	-	0.7	2

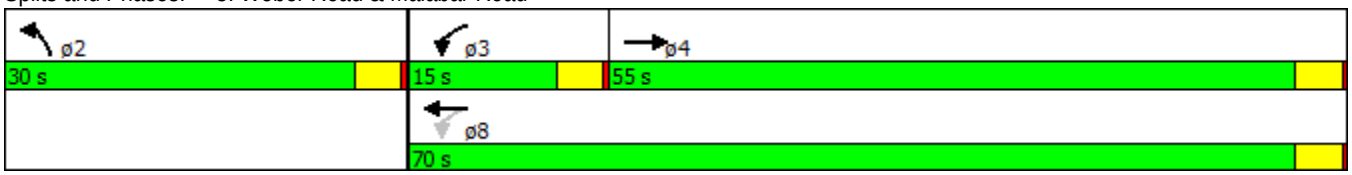
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

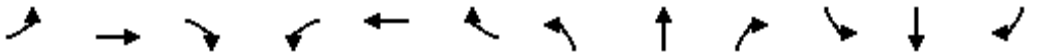
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1081	309	38	760	380	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	255		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1772	0	1736	1827	1751	0
Flt Permitted			0.072		0.962	
Satd. Flow (perm)	1772	0	132	1827	1751	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	21				12	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1511	0	41	826	518	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	55.0		15.0	70.0	30.0	
Total Split (%)	55.0%		15.0%	70.0%	30.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Min	
Act Effct Green (s)	51.2		57.4	57.4	26.1	
Actuated g/C Ratio	0.56		0.63	0.63	0.29	
v/c Ratio	1.51		0.21	0.72	1.02	
Control Delay	256.9		8.8	15.9	79.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	256.9		8.8	15.9	79.6	
LOS	F		A	B	E	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	256.9			15.6	79.6	
Approach LOS	F			B	E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 91.5			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.51			
Intersection Signal Delay: 152.9		Intersection LOS: F	
Intersection Capacity Utilization 109.3%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



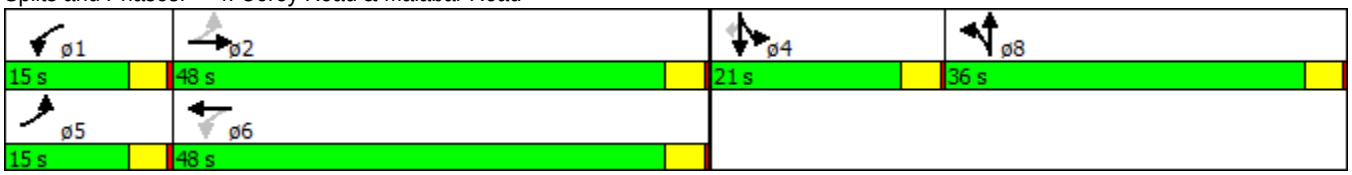


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	991	117	67	701	25	123	13	129	33	11	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1793	0	1736	1818	0	0	1709	0	0	1832	1615
Flt Permitted	0.089			0.089				0.977			0.964	
Satd. Flow (perm)	163	1793	0	163	1818	0	0	1709	0	0	1832	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			2			39				82
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	1204	0	73	789	0	0	288	0	0	48	46
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	15.0	48.0		15.0	48.0		36.0	36.0		21.0	21.0	21.0
Total Split (%)	12.5%	40.0%		12.5%	40.0%		30.0%	30.0%		17.5%	17.5%	17.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	50.7	44.9		51.1	45.1			19.2			8.0	8.0
Actuated g/C Ratio	0.54	0.48		0.55	0.48			0.21			0.09	0.09
v/c Ratio	0.30	1.39		0.34	0.90			0.75			0.31	0.22
Control Delay	14.6	208.9		15.2	40.1			43.7			48.8	5.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	14.6	208.9		15.2	40.1			43.7			48.8	5.0
LOS	B	F		B	D			D			D	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		199.3			38.0			43.7			27.4	
Approach LOS		F			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 93.4			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.39			
Intersection Signal Delay: 119.6		Intersection LOS: F	
Intersection Capacity Utilization 88.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	1095	15	20	796	10	5	1	38	5	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	0	0	0
Mvmt Flow	12	1190	16	22	865	11	5	1	41	5	4	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	876	0	0	1207	0	0	2144	2142	1198	2157	2144	871
Stage 1	-	-	-	-	-	-	1222	1222	-	914	914	-
Stage 2	-	-	-	-	-	-	922	920	-	1243	1230	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	762	-	-	571	-	-	36	49	228	35	49	353
Stage 1	-	-	-	-	-	-	222	254	-	330	355	-
Stage 2	-	-	-	-	-	-	327	352	-	216	252	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	762	-	-	571	-	-	29	43	228	26	43	353
Mov Cap-2 Maneuver	-	-	-	-	-	-	29	43	-	26	43	-
Stage 1	-	-	-	-	-	-	211	242	-	314	328	-
Stage 2	-	-	-	-	-	-	289	326	-	168	240	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	53	91.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	121	762	-	-	571	-	-	61
HCM Lane V/C Ratio	0.395	0.016	-	-	0.038	-	-	0.339
HCM Control Delay (s)	53	9.8	0	-	11.6	0	-	91.7
HCM Lane LOS	F	A	A	-	B	A	-	F
HCM 95th %tile Q(veh)	1.7	0	-	-	0.1	-	-	1.2

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	769	0	282	0	0	0	1312	593	262	153	1383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509
Flt Permitted	0.950								0.115		
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1474	204	1776	1509
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			274					346			1091
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	836	0	307	0	0	0	1426	645	285	166	1503
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	51.0		51.0				41.9	41.9	17.1		
Total Split (%)	46.4%		46.4%				38.1%	38.1%	15.5%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	45.5		45.5				34.9	34.9	48.0	52.0	110.0
Actuated g/C Ratio	0.41		0.41				0.32	0.32	0.44	0.47	1.00
v/c Ratio	1.16		0.38				1.33	0.92	1.16	0.20	1.00
Control Delay	120.0		5.2				188.5	36.3	136.7	17.7	25.3
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	120.0		5.2				188.5	36.3	136.7	17.7	25.3
LOS	F		A				F	D	F	B	C

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							141.1			40.9	
Approach LOS							F			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.33			
Intersection Signal Delay: 91.8		Intersection LOS: F	
Intersection Capacity Utilization 107.1%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	256.9	355.6	1.14	11.5	F
Corey Road	II	55	64.9	208.9	273.8	0.99	13.0	E
US 1	II	35	170.0	5.2	175.2	1.65	34.0	B
Total	II		333.6	471.0	804.6	3.78	16.9	E

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.8	40.1	189.9	1.65	31.3	B
Weber Road	II	55	64.9	15.9	80.8	0.99	44.2	A
Total	II		214.7	56.0	270.7	2.64	35.2	A

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	75	949	1298	20	10	150
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	3
Mvmt Flow	82	1032	1411	22	11	163

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1411	0	-	0	2606	1411
Stage 1	-	-	-	-	1411	-
Stage 2	-	-	-	-	1195	-
Critical Hdwy	4.14	-	-	-	6.4	6.23
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.236	-	-	-	3.5	3.327
Pot Cap-1 Maneuver	477	-	-	-	28	168
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	290	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	477	-	-	-	23	168
Mov Cap-2 Maneuver	-	-	-	-	117	-
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	240	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	111.9
HCM LOS			F

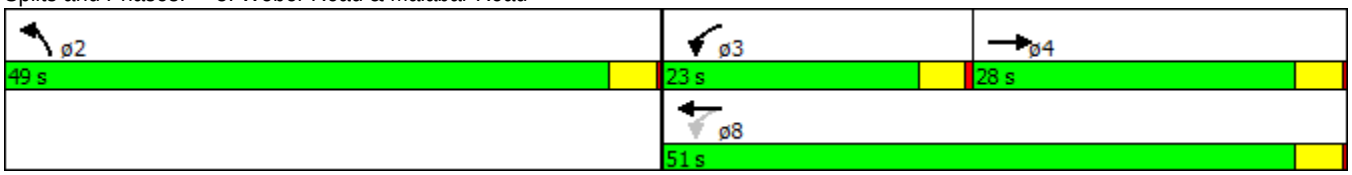
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	477	-	-	-	117	168
HCM Lane V/C Ratio	0.171	-	-	-	0.093	0.97
HCM Control Delay (s)	14.1	-	-	-	38.9	116.8
HCM Lane LOS	B	-	-	-	E	F
HCM 95th %tile Q(veh)	0.6	-	-	-	0.3	7.5

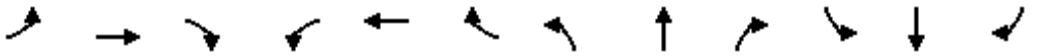
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	722	250	60	1106	220	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	255		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Satd. Flow (prot)	1763	0	1736	1827	1769	0
Flt Permitted			0.094		0.960	
Satd. Flow (perm)	1763	0	172	1827	1769	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	16				13	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1057	0	65	1202	286	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	28.0		23.0	51.0	49.0	
Total Split (%)	28.0%		23.0%	51.0%	49.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Min	
Act Effct Green (s)	38.7		47.2	47.2	16.1	
Actuated g/C Ratio	0.54		0.66	0.66	0.23	
v/c Ratio	1.10		0.25	1.00	0.70	
Control Delay	80.7		7.7	40.4	33.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	80.7		7.7	40.4	33.7	
LOS	F		A	D	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	80.7			38.7	33.7	
Approach LOS	F			D	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 71.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 55.2		Intersection LOS: E	
Intersection Capacity Utilization 79.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



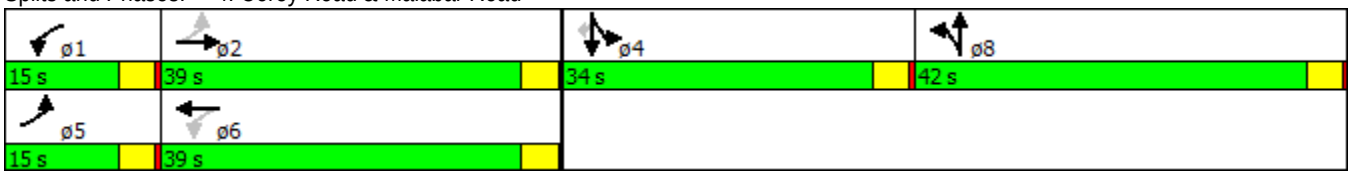


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	630	120	105	960	61	77	13	56	61	25	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1776	0	1736	1810	0	0	1720	0	0	1835	1615
Flt Permitted	0.106			0.096				0.974			0.966	
Satd. Flow (perm)	194	1776	0	175	1810	0	0	1720	0	0	1835	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			2			24				76
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	815	0	114	1109	0	0	159	0	0	93	53
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	15.0	39.0		15.0	39.0		42.0	42.0		34.0	34.0	34.0
Total Split (%)	11.5%	30.0%		11.5%	30.0%		32.3%	32.3%		26.2%	26.2%	26.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	41.6	35.3		47.2	43.5			12.0			9.6	9.6
Actuated g/C Ratio	0.51	0.43		0.58	0.54			0.15			0.12	0.12
v/c Ratio	0.14	1.05		0.44	1.14			0.58			0.43	0.21
Control Delay	10.5	72.6		15.6	99.5			36.9			40.9	6.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.5	72.6		15.6	99.5			36.9			40.9	6.6
LOS	B	E		B	F			D			D	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		70.4			91.7			36.9			28.4	
Approach LOS		E			F			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 81.2			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay: 76.5		Intersection LOS: E	
Intersection Capacity Utilization 82.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	703	5	40	1114	8	15	5	25	5	10	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	5	0	0	0
Mvmt Flow	5	764	5	43	1211	9	16	5	27	5	11	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1220	0	0	770	0	0	2094	2085	767	2096	2082	1215
Stage 1	-	-	-	-	-	-	778	778	-	1302	1302	-
Stage 2	-	-	-	-	-	-	1316	1307	-	794	780	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	565	-	-	836	-	-	39	54	397	39	54	223
Stage 1	-	-	-	-	-	-	392	410	-	200	233	-
Stage 2	-	-	-	-	-	-	196	232	-	384	409	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	565	-	-	836	-	-	26	45	397	29	45	223
Mov Cap-2 Maneuver	-	-	-	-	-	-	26	45	-	29	45	-
Stage 1	-	-	-	-	-	-	386	404	-	197	196	-
Stage 2	-	-	-	-	-	-	144	195	-	348	403	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	177.5	106.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	60	565	-	-	836	-	-	65
HCM Lane V/C Ratio	0.815	0.01	-	-	0.052	-	-	0.502
HCM Control Delay (s)	177.5	11.4	0	-	9.5	0	-	106.6
HCM Lane LOS	F	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	3.6	0	-	-	0.2	-	-	2

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	431	0	264	0	0	0	1623	799	375	120	1079
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509
Flt Permitted	0.950								0.125		
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1475	222	1776	1509
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			387					487			1091
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	468	0	287	0	0	0	1764	868	408	130	1173
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	28.1		28.1				38.9	38.9	23.0		
Total Split (%)	31.2%		31.2%				43.2%	43.2%	25.6%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	22.6		22.6				31.9	31.9	50.9	54.9	90.0
Actuated g/C Ratio	0.25		0.25				0.35	0.35	0.57	0.61	1.00
v/c Ratio	1.08		0.42				1.48	1.04	1.00	0.12	0.78
Control Delay	99.3		2.6				245.3	55.9	69.7	7.8	4.0
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	99.3		2.6				245.3	55.9	69.7	7.8	4.0
LOS	F		A				F	E	E	A	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							182.8			20.0	
Approach LOS							F			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.48			
Intersection Signal Delay: 110.4		Intersection LOS: F	
Intersection Capacity Utilization 103.3%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	80.7	179.4	1.14	22.9	C
Corey Road	II	55	64.9	72.6	137.5	0.99	26.0	C
US 1	II	35	170.0	2.6	172.6	1.65	34.5	B
Total	II		333.6	155.9	489.5	3.78	27.8	C

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.8	99.5	249.3	1.65	23.9	C
Weber Road	II	55	64.9	40.4	105.3	0.99	33.9	B
Total	II		214.7	139.9	354.6	2.64	26.8	C

Appendix N

Excerpt from the SR 514 Access Management Plan

Pond A
BASIN 2

N

0 20 100
Feet

BABCOCK ST

RACE TRAC

MOOSE LODGE

PROPOSED RIGHT-OF-WAY

EXISTING RIGHT-OF-WAY

100

105

110

MALABAR RD

℄ CONSTRUCTION SR 514

BEGIN PROJECT

BABCOCK ST

ENTERPRISE RD

LITTLE IMPRESSIONS ACADEMY

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

LEGEND

- EXISTING R/W LINE
- PARCEL LINE
- STORMWATER POND
- PROPOSED ROADWAY
- POWER POLES
- PROPOSED R/W LINE
- POND ACCESS
- WETLANDS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS
xxxxxxxxxxxxxx P.E.# xxxxx
482 South Keller Road Orlando, FL 32810
(407) 647-7275 www.atkinsglobal.com
Certificate of Authorization No. 24

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-514	BREVARD	430136-1-22-01

MALABAR ROAD (SR514) PD&E
PRELIMINARY RECOMMENDED ALTERNATIVE

SHEET NO. 1

USER: park4904 9/29/2014 9:32:28 AM T:\PROJECTS\FDOT_D5\SR514 PD&E\Cadd\Roadway Concept\planrd01_pref.dgn

LIFE CARE CENTER OF PALM BAY

MEDPLEX PKWY

N

0 20 100

Feet

NEW EDGE OF PAVEMENT

NEW SIDEWALK

PROPOSED RIGHT-OF-WAY

EXISTING RIGHT-OF-WAY

115 120 125 130

MALABAR RD

℄ CONSTRUCTION SR 514

NEW SIDEWALK

NEW EDGE OF PAVEMENT

MALABAR FEED & FARM

CANOVA ST

C-78 CANAL

LEGEND

CITY LIMITS	EXISTING R/W LINE	PARCEL LINE	PROPOSED ROADWAY		
POWER POLES	PROPOSED R/W LINE	POND ACCESS	WETLANDS		

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS
xxxxxxxxxxxxxx P.E.# xxxxx
482 South Keller Road Orlando, FL 32810
(407) 647-7275 www.atkinsglobal.com
Certificate of Authorization No. 24

N-2

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-514	BREVARD	430136-1-22-01

MALABAR ROAD (SR514) PD&E
PRELIMINARY RECOMMENDED ALTERNATIVE

SHEET NO. 2

USER: park4904 9/23/2014 8:50:34 AM T:\PROJECTS\FDOT_D5\SR514 PD&E\Cadd\Roadway Concept\planrd02_pref.dgn

PALM BAY HOSPITAL

MEDPLEX PKWY

MALABAR RD

135

140

145

℄ CONSTRUCTION SR 514

NEW EDGE OF PAVEMENT

NEW SIDEWALK

EXISTING RIGHT-OF-WAY

PROPOSED RIGHT-OF-WAY

BERRI PATCH PRESCHOOL

N

0 20 100

Feet

LEGEND

CITY LIMITS

EXISTING R/W LINE

PARCEL LINE

STORMWATER POND

FEMA FLOODPLAINS

POWER POLES

PROPOSED R/W LINE

PROPOSED ROADWAY

POND ACCESS

WETLANDS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ATKINS
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Certificate of Authorization No. 24

N-3

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-514	BREVARD	430136-1-22-01

MALABAR ROAD (SR514) PD&E
PRELIMINARY RECOMMENDED ALTERNATIVE

SHEET NO. 3

Appendix O

Synchro Output Sheets - Build Alternative

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	137	1154	766	12	6	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	5
Mvmt Flow	149	1254	833	13	7	77

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	833	0	-	0	1758	416
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	925	-
Critical Hdwy	4.18	-	-	-	6.8	7
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.24	-	-	-	3.5	3.35
Pot Cap-1 Maneuver	783	-	-	-	78	577
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	351	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	783	-	-	-	63	577
Mov Cap-2 Maneuver	-	-	-	-	178	-
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	284	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	13.3
HCM LOS			B

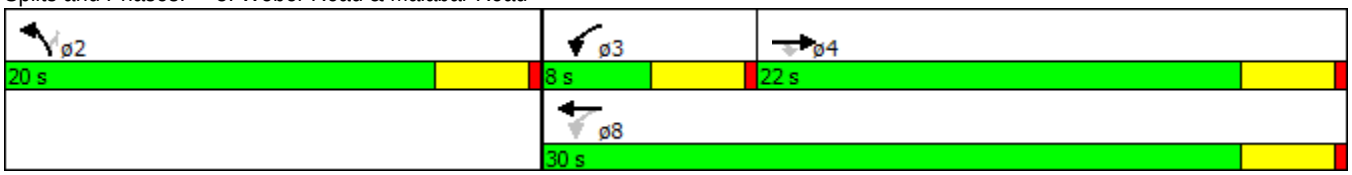
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	783	-	-	-	178	577
HCM Lane V/C Ratio	0.19	-	-	-	0.037	0.134
HCM Control Delay (s)	10.7	-	-	-	26	12.2
HCM Lane LOS	B	-	-	-	D	B
HCM 95th %tile Q(veh)	0.7	-	-	-	0.1	0.5

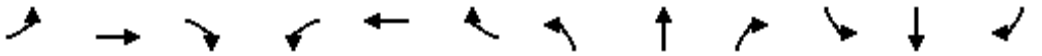
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	990	176	30	658	217	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		250	255		250	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1553	1736	3471	1770	1615
Flt Permitted			0.189		0.950	
Satd. Flow (perm)	3471	1553	345	3471	1770	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		191				51
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1076	191	33	715	236	51
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	8.0	30.0	20.0	20.0
Total Split (%)	44.0%	44.0%	16.0%	60.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	17.2	17.2	19.7	19.7	10.6	10.6
Actuated g/C Ratio	0.44	0.44	0.51	0.51	0.27	0.27
v/c Ratio	0.70	0.24	0.10	0.40	0.49	0.11
Control Delay	14.5	3.2	6.0	6.9	16.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	3.2	6.0	6.9	16.7	5.3
LOS	B	A	A	A	B	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	12.8			6.8	14.6	
Approach LOS	B			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 38.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 46.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



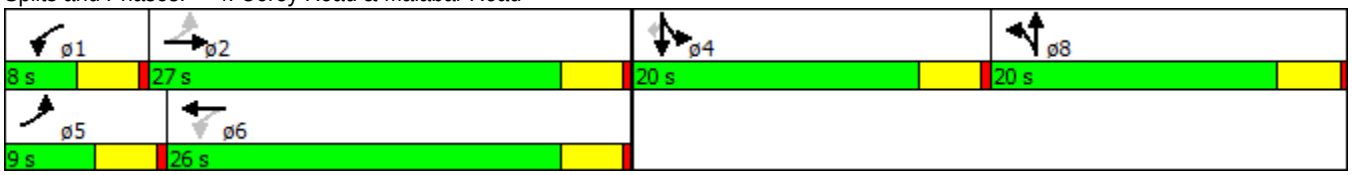


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	882	95	50	557	21	95	11	85	32	10	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3412	0	1736	3454	0	1770	1627	0	0	1830	1615
Flt Permitted	0.339			0.175			0.950				0.963	
Satd. Flow (perm)	619	3412	0	320	3454	0	1770	1627	0	0	1830	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			92				131
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	1062	0	54	628	0	103	104	0	0	46	42
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	9.0	27.0		8.0	26.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	12.0%	36.0%		10.7%	34.7%		26.7%	26.7%		26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	26.1	23.3		25.0	22.8		8.6	8.6			7.0	7.0
Actuated g/C Ratio	0.47	0.42		0.45	0.41		0.15	0.15			0.13	0.13
v/c Ratio	0.15	0.74		0.22	0.44		0.38	0.32			0.20	0.13
Control Delay	9.0	19.4		10.4	14.6		26.5	10.2			26.1	0.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	9.0	19.4		10.4	14.6		26.5	10.2			26.1	0.9
LOS	A	B		B	B		C	B			C	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.8			14.3			18.3			14.0	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 75			
Actuated Cycle Length: 55.5			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 17.1		Intersection LOS: B	
Intersection Capacity Utilization 52.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	904	10	15	602	2	3	1	37	3	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	0	0	0
Mvmt Flow	10	983	11	16	654	2	3	1	40	3	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	657	0	0	993	0	0	1700	1697	988	1716	1701	655
Stage 1	-	-	-	-	-	-	1008	1008	-	688	688	-
Stage 2	-	-	-	-	-	-	692	689	-	1028	1013	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	921	-	-	689	-	-	74	93	303	72	93	470
Stage 1	-	-	-	-	-	-	292	321	-	440	450	-
Stage 2	-	-	-	-	-	-	437	450	-	285	319	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	921	-	-	689	-	-	69	87	303	59	87	470
Mov Cap-2 Maneuver	-	-	-	-	-	-	69	87	-	59	87	-
Stage 1	-	-	-	-	-	-	285	313	-	429	433	-
Stage 2	-	-	-	-	-	-	414	433	-	240	311	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	24.2	34.5
HCM LOS			C	D

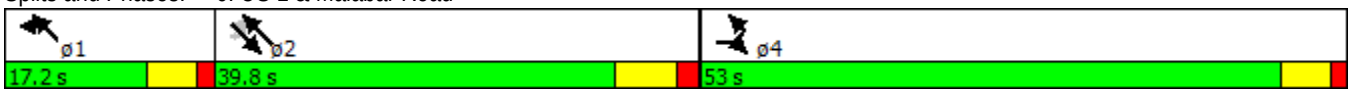
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	232	921	-	-	689	-	-	133
HCM Lane V/C Ratio	0.192	0.011	-	-	0.024	-	-	0.082
HCM Control Delay (s)	24.2	9	0	-	10.4	0	-	34.5
HCM Lane LOS	C	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0.3

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	696	0	233	0	0	0	894	497	224	92	821
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509
Flt Permitted	0.950								0.122		
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1474	217	1776	1509
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			296					413			892
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	757	0	253	0	0	0	972	540	243	100	892
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	53.0		53.0				39.8	39.8	17.2		
Total Split (%)	48.2%		48.2%				36.2%	36.2%	15.6%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	47.5		47.5				32.8	32.8	46.0	50.0	110.0
Actuated g/C Ratio	0.43		0.43				0.30	0.30	0.42	0.45	1.00
v/c Ratio	1.01		0.30				0.97	0.74	0.98	0.12	0.59
Control Delay	67.6		2.1				59.9	15.3	82.0	17.9	1.7
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	67.6		2.1				59.9	15.3	82.0	17.9	1.7
LOS	E		A				E	B	F	B	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							44.0			18.8	
Approach LOS							D			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 37.7		Intersection LOS: D	
Intersection Capacity Utilization 89.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road



Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	14.5	113.2	1.14	36.2	A
Corey Road	II	55	64.9	19.4	84.3	0.99	42.3	A
US 1	II	35	169.9	2.1	172.0	1.65	34.6	B
Total	II		333.5	36.0	369.5	3.78	36.9	A

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.9	14.6	164.5	1.65	36.2	A
Weber Road	II	55	64.9	6.9	71.8	0.99	49.7	A
Total	II		214.8	21.5	236.3	2.64	40.3	A

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	65	795	1153	13	8	141
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	3
Mvmt Flow	71	864	1253	14	9	153

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1253	0	-	0	1826	627
Stage 1	-	-	-	-	1253	-
Stage 2	-	-	-	-	573	-
Critical Hdwy	4.18	-	-	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.24	-	-	-	3.5	3.33
Pot Cap-1 Maneuver	540	-	-	-	70	424
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	533	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	540	-	-	-	61	424
Mov Cap-2 Maneuver	-	-	-	-	167	-
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	463	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	18.7
HCM LOS			C

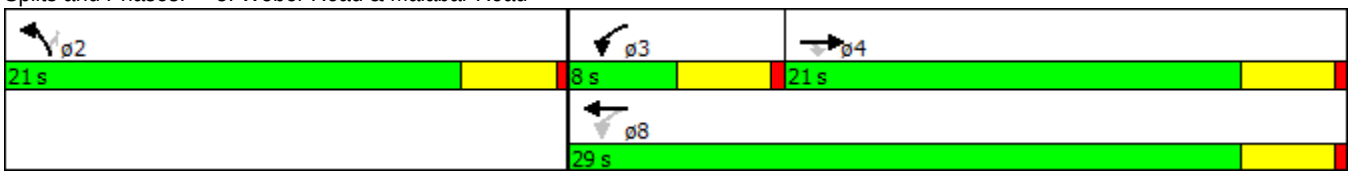
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	540	-	-	-	167	424
HCM Lane V/C Ratio	0.131	-	-	-	0.052	0.361
HCM Control Delay (s)	12.7	-	-	-	27.7	18.2
HCM Lane LOS	B	-	-	-	D	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.2	1.6

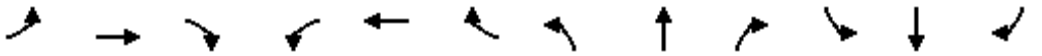
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	609	182	48	983	133	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		250	255		250	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1553	1736	3471	1787	1615
Flt Permitted			0.292		0.950	
Satd. Flow (perm)	3471	1553	533	3471	1787	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		198				38
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	662	198	52	1068	145	38
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	8.0	29.0	21.0	21.0
Total Split (%)	42.0%	42.0%	16.0%	58.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	15.3	15.3	17.8	17.8	8.4	8.4
Actuated g/C Ratio	0.44	0.44	0.51	0.51	0.24	0.24
v/c Ratio	0.43	0.25	0.12	0.60	0.33	0.09
Control Delay	9.0	3.0	5.0	7.5	14.8	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	3.0	5.0	7.5	14.8	6.2
LOS	A	A	A	A	B	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	7.6			7.4	13.0	
Approach LOS	A			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 34.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 41.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



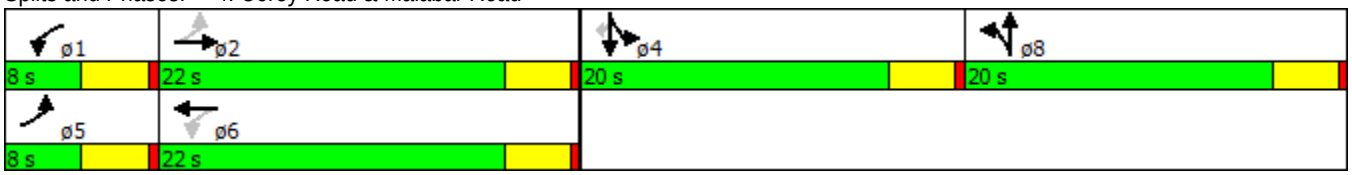


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	550	111	57	839	37	69	5	33	39	15	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3372	0	1736	3450	0	1770	1627	0	0	1834	1615
Flt Permitted	0.213			0.271			0.950				0.965	
Satd. Flow (perm)	389	3372	0	495	3450	0	1770	1627	0	0	1834	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			6			36				140
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	719	0	62	952	0	75	41	0	0	58	39
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	22.0		8.0	22.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	11.4%	31.4%		11.4%	31.4%		28.6%	28.6%		28.6%	28.6%	28.6%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	20.3	18.1		21.0	19.6		7.6	7.6			7.1	7.1
Actuated g/C Ratio	0.41	0.37		0.43	0.40		0.15	0.15			0.14	0.14
v/c Ratio	0.11	0.57		0.20	0.69		0.28	0.15			0.22	0.11
Control Delay	9.2	15.7		9.9	18.3		22.8	10.6			22.7	0.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	9.2	15.7		9.9	18.3		22.8	10.6			22.7	0.6
LOS	A	B		A	B		C	B			C	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		15.4			17.8			18.5			13.8	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 49.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 48.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	613	2	27	923	7	10	1	21	1	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	5	0	0	0
Mvmt Flow	3	666	2	29	1003	8	11	1	23	1	3	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1011	0	0	668	0	0	1746	1744	667	1752	1741	1007
Stage 1	-	-	-	-	-	-	674	674	-	1066	1066	-
Stage 2	-	-	-	-	-	-	1072	1070	-	686	675	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	678	-	-	912	-	-	68	87	454	68	88	295
Stage 1	-	-	-	-	-	-	448	457	-	271	301	-
Stage 2	-	-	-	-	-	-	269	300	-	441	456	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	678	-	-	912	-	-	60	80	454	60	81	295
Mov Cap-2 Maneuver	-	-	-	-	-	-	60	80	-	60	81	-
Stage 1	-	-	-	-	-	-	445	454	-	269	279	-
Stage 2	-	-	-	-	-	-	239	278	-	415	453	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	38.4	31.7
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	142	678	-	-	912	-	-	148
HCM Lane V/C Ratio	0.245	0.005	-	-	0.032	-	-	0.088
HCM Control Delay (s)	38.4	10.3	0	-	9.1	0	-	31.7
HCM Lane LOS	E	B	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	0.3

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Volume (vph)	413	0	206	0	0	0	968	665	341	70	631
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%		0%			0%			0%	
Storage Length (ft)		0	100	0	0	0		185	570		0
Storage Lanes		1	1	0	0	0		1	1		1
Taper Length (ft)		25		25		25			25		
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509
Flt Permitted	0.950								0.129		
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1475	229	1776	1509
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)			390					668			686
Link Speed (mph)		30		30			45			45	
Link Distance (ft)		3209		245			551			747	
Travel Time (s)		72.9		5.6			8.3			11.3	
Confl. Peds. (#/hr)								2			
Confl. Bikes (#/hr)											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)		0%		0%			0%			0%	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	449	0	224	0	0	0	1052	723	371	76	686
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom
Protected Phases	4		4				2		1	2 1	Free
Permitted Phases			4					2	2		
Detector Phase	4		4				2	2	1	2 1	
Switch Phase											
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0		
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5		
Total Split (s)	30.1		30.1				37.9	37.9	22.0		
Total Split (%)	33.4%		33.4%				42.1%	42.1%	24.4%		
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0		
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5		
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0		
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5		
Lead/Lag							Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes		
Recall Mode	None		None				Min	Min	None		
Act Effct Green (s)	24.5		24.5				30.9	30.9	48.9	52.9	89.9
Actuated g/C Ratio	0.27		0.27				0.34	0.34	0.54	0.59	1.00
v/c Ratio	0.95		0.32				0.91	0.77	0.95	0.07	0.45
Control Delay	64.7		1.2				40.8	9.3	59.0	8.3	1.0
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0
Total Delay	64.7		1.2				40.8	9.3	59.0	8.3	1.0
LOS	E		A				D	A	E	A	A

Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							28.0			20.5	
Approach LOS							C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 89.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 28.6		Intersection LOS: C	
Intersection Capacity Utilization 82.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	9.0	107.7	1.14	38.1	A
Corey Road	II	55	64.9	15.7	80.6	0.99	44.3	A
US 1	II	35	169.9	1.2	171.1	1.65	34.8	B
Total	II		333.5	25.9	359.4	3.78	37.9	A

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.9	18.3	168.2	1.65	35.4	A
Weber Road	II	55	64.9	7.5	72.4	0.99	49.3	A
Total	II		214.8	25.8	240.6	2.64	39.6	A

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	130	1540	1042	13	6	71
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	0	5
Mvmt Flow	141	1674	1133	14	7	77

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1133	0	-	0	2253	566
Stage 1	-	-	-	-	1133	-
Stage 2	-	-	-	-	1120	-
Critical Hdwy	4.18	-	-	-	6.8	7
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.24	-	-	-	3.5	3.35
Pot Cap-1 Maneuver	601	-	-	-	36	460
Stage 1	-	-	-	-	273	-
Stage 2	-	-	-	-	278	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	601	-	-	-	28	460
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	273	-
Stage 2	-	-	-	-	213	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	16.1
HCM LOS			C

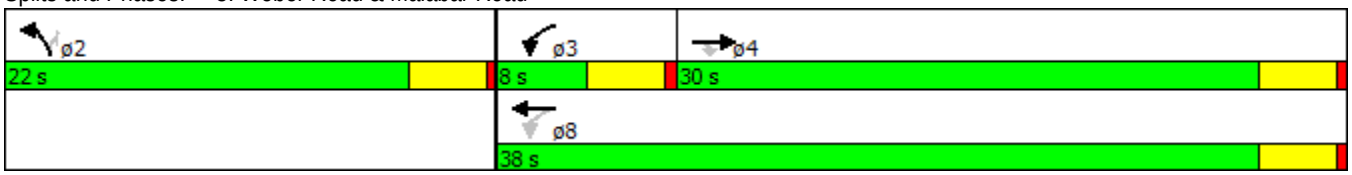
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	601	-	-	-	122	460
HCM Lane V/C Ratio	0.235	-	-	-	0.053	0.168
HCM Control Delay (s)	12.8	-	-	-	36.2	14.4
HCM Lane LOS	B	-	-	-	E	B
HCM 95th %tile Q(veh)	0.9	-	-	-	0.2	0.6

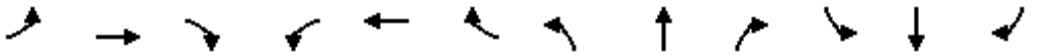
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1267	315	63	869	384	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		250	255		250	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1553	1736	3471	1770	1615
Flt Permitted			0.137		0.950	
Satd. Flow (perm)	3471	1553	250	3471	1770	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		342				107
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1377	342	68	945	417	107
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	30.0	30.0	8.0	38.0	22.0	22.0
Total Split (%)	50.0%	50.0%	13.3%	63.3%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	25.3	25.3	29.6	29.6	16.0	16.0
Actuated g/C Ratio	0.47	0.47	0.55	0.55	0.30	0.30
v/c Ratio	0.84	0.38	0.27	0.49	0.79	0.19
Control Delay	20.9	2.9	8.7	8.6	32.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	2.9	8.7	8.6	32.1	5.1
LOS	C	A	A	A	C	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	17.3			8.6	26.5	
Approach LOS	B			A	C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 53.8			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 16.1		Intersection LOS: B	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



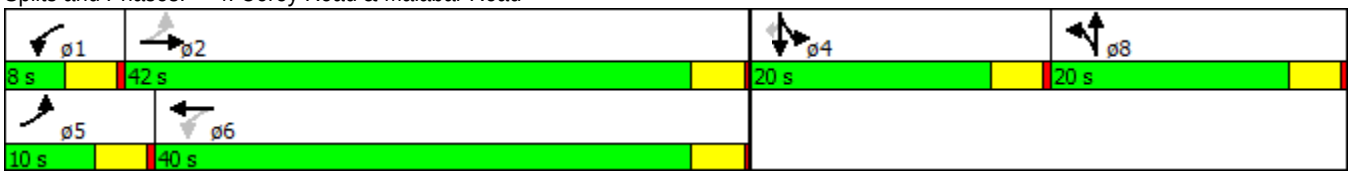


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	1214	123	69	842	27	128	16	131	33	11	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3415	0	1736	3454	0	1770	1626	0	0	1832	1615
Flt Permitted	0.203			0.110			0.950				0.964	
Satd. Flow (perm)	371	3415	0	201	3454	0	1770	1626	0	0	1832	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			4			142				109
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1454	0	75	944	0	139	159	0	0	48	45
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	10.0	42.0		8.0	40.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	11.1%	46.7%		8.9%	44.4%		22.2%	22.2%		22.2%	22.2%	22.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	42.3	37.8		39.3	36.2		11.2	11.2			7.5	7.5
Actuated g/C Ratio	0.57	0.51		0.53	0.48		0.15	0.15			0.10	0.10
v/c Ratio	0.21	0.84		0.40	0.56		0.53	0.44			0.26	0.17
Control Delay	9.3	23.2		14.6	16.7		38.0	11.5			36.8	1.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	9.3	23.2		14.6	16.7		38.0	11.5			36.8	1.4
LOS	A	C		B	B		D	B			D	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		22.6			16.6			23.9			19.7	
Approach LOS		C			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 74.7			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 20.5		Intersection LOS: C	
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



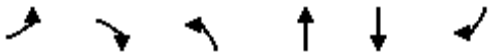
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	1211	11	18	815	2	3	1	40	3	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	0	0	0	0
Mvmt Flow	10	1316	12	20	886	2	3	1	43	3	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	888	0	0	1328	0	0	2272	2269	1322	2290	2274	887
Stage 1	-	-	-	-	-	-	1342	1342	-	926	926	-
Stage 2	-	-	-	-	-	-	930	927	-	1364	1348	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	754	-	-	513	-	-	29	41	193	28	41	346
Stage 1	-	-	-	-	-	-	190	223	-	325	350	-
Stage 2	-	-	-	-	-	-	323	350	-	184	221	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	754	-	-	513	-	-	25	36	193	19	36	346
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	36	-	19	36	-
Stage 1	-	-	-	-	-	-	180	212	-	308	323	-
Stage 2	-	-	-	-	-	-	291	323	-	135	210	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	51.2	91.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	124	754	-	-	513	-	-	53
HCM Lane V/C Ratio	0.386	0.013	-	-	0.038	-	-	0.226
HCM Control Delay (s)	51.2	9.8	0	-	12.3	0	-	91.7
HCM Lane LOS	F	A	A	-	B	A	-	F
HCM 95th %tile Q(veh)	1.6	0	-	-	0.1	-	-	0.8



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	997	311	277	1549	1329	678
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	350	130	570			185
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Satd. Flow (prot)	3367	1553	3273	3374	3374	1509
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3367	1553	3273	3374	3374	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		166				15
Link Speed (mph)	30			45	45	
Link Distance (ft)	845			1055	1583	
Travel Time (s)	19.2			16.0	24.0	
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1084	338	301	1684	1445	737
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		1	2 1	2	4
Permitted Phases		4				2
Detector Phase	4	4	1	2 1	2	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		15.0	10.0
Minimum Split (s)	21.5	21.5	15.5		23.0	21.5
Total Split (s)	44.0	44.0	17.0		59.0	44.0
Total Split (%)	36.7%	36.7%	14.2%		49.2%	36.7%
Yellow Time (s)	4.0	4.0	4.0		5.0	4.0
All-Red Time (s)	1.5	1.5	1.5		2.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5		7.0	5.5
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None		Min	None
Act Effct Green (s)	38.5	38.5	11.5	69.0	52.0	92.0
Actuated g/C Ratio	0.32	0.32	0.10	0.58	0.43	0.77
v/c Ratio	1.00	0.55	0.96	0.87	0.99	0.64
Control Delay	69.2	20.4	96.3	27.8	55.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.2	20.4	96.3	27.8	55.0	7.3
LOS	E	C	F	C	D	A

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	57.6			38.2	38.9	
Approach LOS	E			D	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 43.4		Intersection LOS: D	
Intersection Capacity Utilization 88.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	20.9	119.6	1.14	34.3	B
Corey Road	II	55	64.9	23.2	88.1	0.99	40.5	A
US 1	II	35	169.9	69.2	239.1	1.65	24.9	C
Total	II		333.5	113.3	446.8	3.78	30.5	B

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.9	16.7	166.6	1.65	35.7	A
Weber Road	II	55	64.9	8.6	73.5	0.99	48.6	A
Total	II		214.8	25.3	240.1	2.64	39.7	A

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	130	1540	1568	14	6	142
Conflicting Peds, #/hr	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	200	-	-	160	0	0
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	69	4	4	0	3
Mvmt Flow	141	1674	1704	15	7	154

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1704	0	-	0	2824	852
Stage 1	-	-	-	-	1704	-
Stage 2	-	-	-	-	1120	-
Critical Hdwy	4.18	-	-	-	6.8	6.96
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.24	-	-	-	3.5	3.33
Pot Cap-1 Maneuver	360	-	-	-	15	301
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	278	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	360	-	-	-	9	301
Mov Cap-2 Maneuver	-	-	-	-	73	-
Stage 1	-	-	-	-	135	-
Stage 2	-	-	-	-	169	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	30.1
HCM LOS			D

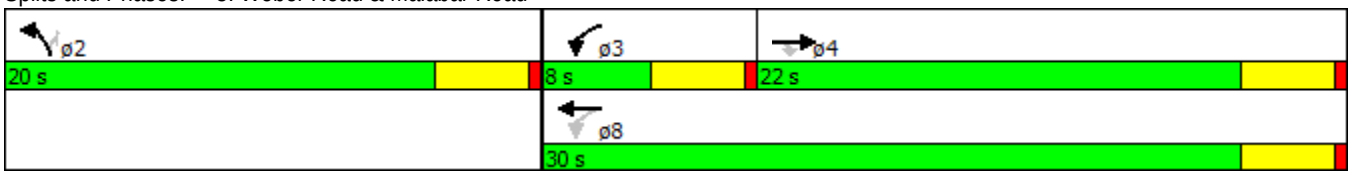
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	360	-	-	-	73	301
HCM Lane V/C Ratio	0.393	-	-	-	0.089	0.513
HCM Control Delay (s)	21.3	-	-	-	59.1	28.9
HCM Lane LOS	C	-	-	-	F	D
HCM 95th %tile Q(veh)	1.8	-	-	-	0.3	2.7

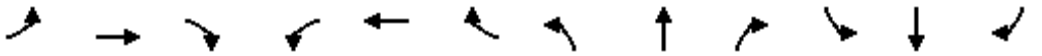
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	810	255	87	1312	234	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		250	255		250	0
Storage Lanes		1	1		1	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3471	1553	1736	3471	1787	1615
Flt Permitted			0.198		0.950	
Satd. Flow (perm)	3471	1553	362	3471	1787	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		277				42
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	880	277	95	1426	254	42
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	8.0	30.0	20.0	20.0
Total Split (%)	44.0%	44.0%	16.0%	60.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	18.7	18.7	23.0	23.0	11.3	11.3
Actuated g/C Ratio	0.44	0.44	0.54	0.54	0.27	0.27
v/c Ratio	0.58	0.33	0.29	0.76	0.54	0.09
Control Delay	12.6	3.2	7.7	11.6	18.6	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	3.2	7.7	11.6	18.6	5.5
LOS	B	A	A	B	B	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	10.3			11.3	16.7	
Approach LOS	B			B	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 42.5			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 55.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Weber Road & Malabar Road



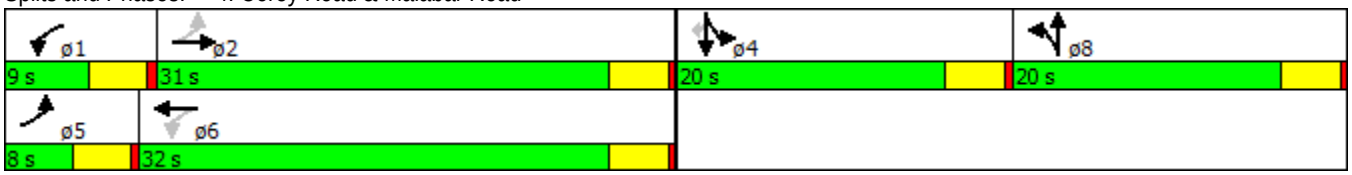


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	735	168	105	1133	61	78	14	61	63	26	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3360	0	1736	3443	0	1770	1635	0	0	1835	1615
Flt Permitted	0.145			0.161			0.950				0.966	
Satd. Flow (perm)	265	3360	0	294	3443	0	1770	1635	0	0	1835	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			7			66				123
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	982	0	114	1298	0	85	81	0	0	96	54
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	31.0		9.0	32.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	10.0%	38.8%		11.3%	40.0%		25.0%	25.0%		25.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	29.0	25.9		31.8	30.0		8.5	8.5			8.7	8.7
Actuated g/C Ratio	0.47	0.42		0.51	0.48		0.14	0.14			0.14	0.14
v/c Ratio	0.15	0.69		0.43	0.78		0.35	0.29			0.37	0.16
Control Delay	10.0	18.9		13.6	20.3		30.3	13.1			30.2	1.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	10.0	18.9		13.6	20.3		30.3	13.1			30.2	1.1
LOS	A	B		B	C		C	B			C	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.6			19.8			21.9			19.7	
Approach LOS		B			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 62.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 19.5		Intersection LOS: B	
Intersection Capacity Utilization 58.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Corey Road & Malabar Road



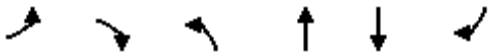
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	820	4	40	1200	13	12	1	22	1	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	5	0	0	0
Mvmt Flow	12	891	4	43	1304	14	13	1	24	1	3	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1318	0	0	896	0	0	2321	2322	893	2328	2318	1311
Stage 1	-	-	-	-	-	-	917	917	-	1398	1398	-
Stage 2	-	-	-	-	-	-	1404	1405	-	930	920	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	518	-	-	749	-	-	27	38	336	26	38	196
Stage 1	-	-	-	-	-	-	329	354	-	176	209	-
Stage 2	-	-	-	-	-	-	175	208	-	323	352	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	518	-	-	749	-	-	19	28	336	19	28	196
Mov Cap-2 Maneuver	-	-	-	-	-	-	19	28	-	19	28	-
Stage 1	-	-	-	-	-	-	314	338	-	168	164	-
Stage 2	-	-	-	-	-	-	129	163	-	285	336	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.3	203.4	80.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	48	518	-	-	749	-	-	60
HCM Lane V/C Ratio	0.793	0.023	-	-	0.058	-	-	0.217
HCM Control Delay (s)	203.4	12.1	0	-	10.1	0	-	80.9
HCM Lane LOS	F	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	3.2	0.1	-	-	0.2	-	-	0.7



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	525	310	377	1273	1631	893
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)	350	130	570			185
Storage Lanes	1	1	2			1
Taper Length (ft)	25		25			
Satd. Flow (prot)	3367	1553	3273	3374	3374	1509
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	3367	1553	3273	3374	3374	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		220				13
Link Speed (mph)	30			45	45	
Link Distance (ft)	845			1055	1583	
Travel Time (s)	19.2			16.0	24.0	
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	571	337	410	1384	1773	971
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		1	2 1	2	4
Permitted Phases		4				2
Detector Phase	4	4	1	2 1	2	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0		15.0	10.0
Minimum Split (s)	21.5	21.5	15.5		23.0	21.5
Total Split (s)	32.1	32.1	22.0		75.9	32.1
Total Split (%)	24.7%	24.7%	16.9%		58.4%	24.7%
Yellow Time (s)	4.0	4.0	4.0		5.0	4.0
All-Red Time (s)	1.5	1.5	1.5		2.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5		7.0	5.5
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None		Min	None
Act Effct Green (s)	26.5	26.5	16.5	90.9	68.9	96.9
Actuated g/C Ratio	0.20	0.20	0.13	0.70	0.53	0.75
v/c Ratio	0.83	0.69	0.99	0.59	0.99	0.87
Control Delay	61.2	24.3	97.4	11.2	49.6	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	24.3	97.4	11.2	49.6	19.0
LOS	E	C	F	B	D	B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	47.5			30.9	38.8	
Approach LOS	D			C	D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 129.9			
Natural Cycle: 130			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 37.6		Intersection LOS: D	
Intersection Capacity Utilization 85.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: US 1 & Malabar Road

Arterial Level of Service: EB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Weber Road	II	42	98.7	12.6	111.3	1.14	36.9	A
Corey Road	II	55	64.9	18.9	83.8	0.99	42.6	A
US 1	II	35	169.9	61.2	231.1	1.65	25.8	C
Total	II		333.5	92.7	426.2	3.78	32.0	B

Arterial Level of Service: WB Malabar Road

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Corey Road	II	40	149.9	20.3	170.2	1.65	35.0	B
Weber Road	II	55	64.9	11.6	76.5	0.99	46.7	A
Total	II		214.8	31.9	246.7	2.64	38.6	A

Appendix P

Queue Length Calculations - Design Year 2045 Build Conditions

SR 514 Design Traffic Technical Memorandum

Recommended Queue Length of Turn Lanes for Signalized Intersections- Design Year 2045

Turning Movement	Turning Volume (Veh/Hr)	G/C Ratio	Total Cycle Length (Sec)	Number of Turn Lanes	Per Lane Volume (VPHPL)	Percent Trucks	Adjust. Factor	Calc'd Queue Length (ft)	Rec'd Queue Length (ft)
AM Design Hour									
INTERSECTION		**SR 514 & Weber Road**							
EB Right	315	0.52	90	1	315	4.0%	1.25	123	**125**
WB Left	63	0.60	90	1	63	4.0%	1.25	20	**100**
NB Left	384	0.29	90	1	384	2.0%	1.25	217	**225**
INTERSECTION		**SR 514 & Corey Road**							
EB Left	62	0.55	110	1	62	4.0%	1.25	28	**100**
WB Left	69	0.59	110	1	69	4.0%	1.25	28	**100**
NB Left	128	0.15	110	1	128	2.0%	1.25	106	**125**
SB Right	41	0.10	110	1	41	0.0%	1.25	35	**100**
INTERSECTION		**SR 514 & US 1**							
EB Left	997	0.32	120	2	499	4.0%	1.25	367	**375**
NB Left	277	0.10	120	2	139	7.0%	1.25	139	150
SB Right	678	0.77	120	1	678	7.0%	1.25	174	175

Notes:

1. Queue Lengths are calculated based on the following formula: $L = (A)(DHV)(1-G/C)(T+1)(F) / (3600/C) / (N)$

where:

L = Queue length

DHV = design hour volume, in vph

G/C = ratio of green time to cycle length

T = percent of heavy vehicles

F = adjustment factor (1.25 to 2)

C = cycle length

N = # of lanes

A = Assumed 25 feet for automobile

2. Recommended Queue lengths are shown in yellow shade and bold letters.

3. A minimum Queue length of 100 feet is assumed as the recommended length for calculated lengths of less than 100 feet.

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PM Design Hour									
INTERSECTION:		**SR 514 & Weber Road**							
EB Right	255	0.44	50	1	255	4.0%	1.25	64	100
WB Left	87	0.54	50	1	87	4.0%	1.25	18	100
NB Left	234	0.27	50	1	234	1.0%	1.25	75	100
INTERSECTION:		**SR 514 & Corey Road**							
EB Left	29	0.47	80	1	29	4.0%	1.25	11	100
WB Left	105	0.51	80	1	105	4.0%	1.25	37	100
NB Left	78	0.14	80	1	78	2.0%	1.25	48	100
SB Right	50	0.14	80	1	50	0.0%	1.25	30	100
INTERSECTION:		**SR 514 & US 1**							
EB Left	525	0.20	130	2	263	4.0%	1.25	246	250
NB Left	377	0.13	130	2	189	7.0%	1.25	198	**200**
SB Right	893	0.75	130	1	893	7.0%	1.25	270	**225**

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where:

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